

# AMERICAN RAILROAD JOURNAL

## STEAM NAVIGATION, COMMERCE, MINING, MANUFACTURES.

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### American Railroad Journal.

Saturday, October 30, 1852.

#### Investments in Railroads.

As the railroads in progress in this country require an annual outlay of at least \$75,000,000, it is natural that works absorbing so much money should attract great attention, and that capitalists should feel some concern, lest we should push their construction beyond the immediate wants of the country, or undertake a more extended system than we have capital to carry out, and one beyond the capacity of the business of the country to supply with a lucrative traffic. The present period differs so much from all preceding both in kind and degree, that many are not certain that we are not going wrong, from no other reason than the *magnitude* of our enterprises.

We have often stated our reasons for believing the great railroad interest of the country to be in a sound and healthy condition. But as the circle of our readers, as well as of persons inquiring into the subject of our railroads, is daily and rapidly increasing, we still think we cannot discuss a subject more interesting and useful, than the probable results of railroad investments in the United States. In endeavoring to form a correct idea of the necessities, uses and prospective traffic, upon our

railroads, we must first understand thoroughly the physical character of the country, its extent and productiveness, the general absence of that diversity of pursuits which in other countries supplies to each section a market for its own surplus products, and the wide distance which separates our manufacturing and commercial, from the agricultural interest. Our railroad system being expressly adapted to the wants and the peculiar condition of this country; a thorough appreciation of its conditions necessarily precedes a correct view of our public works.

In the first place, the *domestic* markets of the country are confined to a narrow belt of territory in the eastern States, lying upon, or within a short distance of the sea coast, and embracing an area of only a few thousand square miles. The area of production (we speak of agriculture) embraces more than one million, while the area of consumption (occupied by the manufacturing and commercial classes) will not equal one-twentieth of the former. The latter district, too, constitutes the very verge of that portion of the country furthest removed from the great seats of production. The corn, tobacco and hemp of the States of Kentucky and Missouri for instance, have to be transported from 1,000 to 1,500 miles before they can even reach our domestic markets. Without an avenue to them, the surplus products of these States, and consequently the industry of their people, are utterly worthless in a commercial point of view. A farmer with 10,000 bushels of corn is no better off than with 1,000, if he have no market for either quantity. The fertility of his soil is no source of profit, after the first wants of his nature are satisfied. As he cannot sell, he is without the ability to purchase, and it is the same to the eastern manufacturer or merchant, whether a farmer residing in the interior of the above States lives in a desert or in the midst of fertility, so long as he has no means of reaching a market.

What is true of our domestic, is equally true of foreign markets, as the former must be reached through the latter.

Now the hypothetical case we have put, represents to a very great extent the actual condition of a large part of the population of the United States. To a certain extent it is true of all. In large districts of country many of the most important articles of agriculture are not worth the cost of sending

to market. As they cannot be consumed on the spot they are nearly worthless. The articles of oats, hay and potatoes, (the two latter ranking among our most valuable crops), will bear the cost of transportation only a few miles. As we go into the western States, the same becomes true of Indian corn and wheat even. All of these have to be moved at a distance from the place of production to find consumers, and the return to the producer is reduced just in proportion to the cost of transportation. The case supposed, it will be seen, is not only absolutely true, applied to certain sections of country, but is universally true, in a certain degree, of all.

The general uses of railroads, and their necessity as a means of developing our resources, are we think sufficiently and closely made out. They are adapted to our condition and wants. The only question, therefore, which is really for consideration is, what is the proper limit to their construction?

As the greater part of our works in progress are in newly settled portions of the country, it is important that we consider the ability of their people to supply them with a lucrative traffic. Now it is undeniably true, singular as it may seem, that a given number of people in the new, supply a much larger traffic to railroads than an equal number in the older States. The reason of this is obvious. In the former the people devote themselves entirely to agriculture, and the labor of one man will produce three times the quantity of wheat and corn in Ohio, as in Massachusetts or Connecticut. One year is sufficient to prepare the soil for crops, and as they may be renewed for years, without rotation in dressing, the capacity of one acre of land in the Mississippi valley, compared with an equal area in the eastern States, is immeasurably greater.

From the want of a diversity of employment in the west, all surplus beyond the immediate wants of the farmer has to be exported. The surplus of all his neighbors is the same in kind. He must go to the eastern cities, to New England, and to Europe even, to find consumers for his grains. But as articles of food constitute only a small portion of his wants, he is compelled to import everything that his farm does not supply. Upon western and southern railroads, therefore, are thrown not only all the surplus products of the district they accommodate, but a return freight equal in bulk or value,

as the case may be. In these sections of country there are no variety of pursuits, that consume all produced within a given circle. In the older States the different interests must be so nicely balanced, as mutually to supply to each other all the articles that go into consumption. In such cases railroads are not needed to aid in distribution.

As a striking illustration of the correctness of the general statements we have been making, we may take the case of the State of Mississippi. The great production of this state is *cotton*. All this cotton has to be exported beyond its boundaries; none of it is manufactured upon the soil where it is raised. All of it goes to New England, Great Britain, France, etc. In return for this cotton, is imported nearly everything the people eat or wear. As already stated, the total value or bulk of this cotton comes back to the people by the same channel through which it was forwarded.

For these reasons, which must be perfectly obvious to every one, there cannot be a doubt that one thousand people in Mississippi would supply three times as much business to a railroad, as an equal number living in New Jersey, or Connecticut. The less the diversity of pursuits, or what may amount to the same, the more recently settled a district of country, the greater the amount of transportation. Of course the longer a country is settled, the better organised and directed does labor become, and the greater amount produced by a given number of hands.

It is a great mistake, therefore, to suppose that because a country is new it cannot contribute a remunerative traffic. Both in the southern and western states, a fertile and inexhaustible soil is spread out before the farmer and planter, into which he has only to cast his seed to reap an abundant harvest. In the eastern states an equal amount of labor would not produce one-half the same result. In the United States, where ever we find a well peopled district we shall find all the material of an existing traffic for a railroad, which will often be the greater the more recently settled.

This branch of the arguments being disposed of, the next for consideration is, how large an area is required to support a railroad? The answer to this of course, depends upon the character of the country and the cost of the work. The Vermont Central road has proved unproductive, for the reason that it traversed a country affording but a small traffic and has proved a very expensive work, costing something over \$60,000 per mile. On the other hand, the Cleveland and Columbus has proved a profitable investment, its wants being greater than the Vermont Central, while its cost has been only about one-fourth as much. The former was thro' a much older and as densely settled country though one in which labor is more subdivided but less productive.

We do not of course mean to imply that manufacturing establishments do not supply a large business to railroad companies. Far from it. We only mean to say that where agriculture is the appropriate occupation of a people, the less the diversity of labor, the greater the surplus production thrown upon railroads.

In looking at the eastern states, it is difficult to establish any rule as a limit to the extent to which railroad construction may with safety be carried from the want of homogeneity in the soil, productiveness and topographical character of the country. Portions of New York and Pennsylvania, for instance, are not adapted to such works. In the western states, we find greater uniformity in the

above characteristics, and can form a more correct opinion in reference to the subject under consideration. Take the state of Ohio for an illustration of the western states. Every portion of this is well adapted to railroad construction and is nearly uniformly fertile, the less productive portions having more than an equivalent in their great mineral resources. Now, there can be no doubt in our own minds that, parallel lines of railroad traversing the state, both from north to south and from east to west, within twenty miles of each other, and which would give a belt of country to each, twenty miles in width will be supplied from such belt with a lucrative traffic. Let us analyze this calculation a little and see what will be the result.

The above estimate would give to the state of Ohio 3800 miles of railroad, or one mile to about every 10½ miles. The cost of these roads we will estimate at \$20,000 per mile. The interest on this amount will be \$1,400 annually, which must be met by the net earnings of the roads, to make them safe investments for capital.

Every mile of railroad by the above hypothesis, would secure the freight supplied by 6720 acres of land, and the passenger traffic of 525 people, estimating the population of the state at only 2,000,000, which is much below the actual number. Nor we will suppose one tenth of the land to be under cultivation, and that the annual produce is equivalent to 40 bushels of corn and wheat to the acre, which is not below the actual produce.

This would give an aggregate product of 268,800 bushels, and deducting one-half for domestic consumption would leave 134,400 for export, which at 4 cents per bushel, allowing an average transportation of 50 miles, would yield a revenue of \$537 60. Estimating the receipts from the transportation of other agricultural products, live stock, etc., etc., to yield an equal amount; and that received on imports to equal one-half the amount received on exports, and we have \$1612 80 as the sum that 10½ square miles of territory will supply to one mile of railroad.

The gross receipts from passengers upon the Massachusetts railroads for the year 1851 averaged over \$3,50 to each inhabitant in the state. Estimating the receipts of the Ohio road to equal the above amount with the present population only, and we have \$1837 75 as the gross receipts of 10½ square miles. The total income from this area will then be as follows:

Receipts for freight.....	\$1612 80
" passengers.....	1837 75

Per mile of road.....	\$3450 55
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Estimating expenses at 40 per cent of the gross receipts, and we have a net income of \$2070.33 per mile, or over 10 per cent on a cost of \$20,000 per mile.

To shew that we have not over estimated the amount of production in the state, we would state that the yield in 1849 of the articles of wheat and corn alone, equalled 72,000,000 bushels. Apply the above estimated product per acre to the whole number of acres supposed to be cultivated; and we should have a gross production for the whole state of 100,000,000, which cannot be much above the amount now annually raised. But it will be borne in mind that every new railroad stimulates production to an extraordinary degree, and that long before the number of miles of road estimated for the state shall come into use, the production will be far beyond our calculation. The population will go from 2,000,000 to 2,750,000, or 3,000,000, and in addi-

tion to agricultural, vast manufacturing and mineral interests, will be brought into existence. As railroads progress the people will become more accustomed to travel, so that the receipts for capital upon the roads of Ohio will continue to exceed those upon the Massachusetts lines at the present time.

We have taken Ohio as an illustration for all the new States. Long before the others can secure the number of miles of railroad which we have assigned to Ohio, they will come up to the amount of her production and population. They have, perhaps, equal capabilities, and will in time sustain an equally extensive system of public works.

Ohio has an area of 40,000 square miles. The whole area of the territory within which we are building railroads, will equal 1,000,000. It will require, therefore, over 100,000 miles of road to meet the wants of this extent of territory, allowing the same ratio per mile, that we have to Ohio.—However extravagant this estimate may appear, we shall continue their construction till even this enormous extent is reached. We are still building new roads even in those States best supplied with those works, and every year is the area of their construction being enlarged. In the United States the railroad is destined to become the ordinary highway, and they can be built at a cost that will bring them within convenient distance of every farmer and planter in the country.

#### Baltimore and Ohio Railroad.

##### TWENTY-SIXTH ANNUAL REPORT.

Continued from page 678.

#### IV.—OF THE EXTENSION TO THE OHIO RIVER.

The report of the Chief Engineer, herewith annexed, will show the operations of that department during the year.

It is with feelings of unmixed pride, the Board have it in their power to announce, that this great work is now within a period of little more than sixty days of its final completion.

The track has advanced steadily under the direction of the able and energetic officer in the charge of the Engineer department of the service. On the 22d day of June last, the road was formally opened to the Monongahela river, since which time the trains have been running to that point, with a regularity scarcely surpassed on any part of the old road, between Baltimore and Cumberland. No assistant power has as yet been resorted to, and the high grades are worked with entire satisfaction, and at rates of speed, both ascending and descending, which compare favorably with the operations of the general line.

There now remain to be constructed about forty miles, between the "Pettibone Tunnel" and the city of Wheeling. Soon after the first of October, the track was expected to move eastwardly, from the Wheeling terminus, and to meet the track advancing westwardly, at some intermediate point, about the period announced for the opening of the road. The work at the "Pettibone Tunnel" has not progressed with the rapidity that could have been desired, owing to causes beyond the control of the engineer; but in case of any delay at that point, a graded road over the mountain—which may be made entirely available—will furnish a connection, which will answer a temporary purpose, until the tunnel can be placed in state of readiness for the track. The delay at this point cannot, however, be great; and will present no serious obstruction, in the opinion of the Engineer, to the general business, which it is proposed to commence, as soon after the first of January, as the trains can be organized.

The location of this road—through the boldest mountain region which has yet been traversed by any work of internal improvement in this country, is well calculated to excite a feeling of surprise even among professional men. For a distance of more than seventy miles, it has grappled with a succession of mountain ranges—relieved only by occasional valleys of limited extent. The road has

been placed, however, upon sale and permanent ground, and will be as little liable to the contingencies, to which new roads are exposed, as other works with which nature has dealt more liberally, in the facilities which she has held out in the original construction.

The part of the finished road which is now being used, is already firmly bedded, and is in the best condition for a heavy business.

By the 1st of December, if not earlier, the cars may be run over the extended line, with the exception of about fifteen miles of staging, between Grave Creek and the "Wheeling tunnel," and with the co-operation of the city of Wheeling, in relaxing the restrictions of the charter, requiring all parts of the road from the Monongahela to be opened at the same time, both passengers and mails may be placed upon a footing as favorable as that of any other road connecting with the seaboard.

#### V.—OF THE FINANCES.

The last annual report presented a detailed exhibit of the company's finances up to that period. The Treasurer had then in hand the balance arising from the sale of 5 per cent sterling bonds of the State of Maryland, amounting in all to \$861,466,—\$60,750 of money loaned, and a balance of \$760,000, rated at par, of the \$1,128,500 of coupon bonds, estimated in the President's report of Oct., 1849, as necessary to complete the road.

Against this amount, the expenditures were averaged at \$1,286,000, between October and May, exclusive of the large amount falling due for interest of debt, etc. During the single month of October, the disbursements on construction account largely exceeds \$250,000.

The position of the company at this critical juncture, made it important that no timid or temporizing policy should mark the proceedings of the Board, in the endeavor to place themselves in a position to meet any contingency which was likely to arise. After a period of unprecedented ease and abundance, the board found themselves almost without warning, in the midst of a financial crisis, with a family of more than 5,000 laborers and 1000 horses to be provided for, their treasury rapidly growing weaker, and their monthly averages largely exceeding two hundred thousand dollars. They had undertaken a work of no common magnitude. The commercial existence of the city of Baltimore, it was well known, depended on its prompt and successful prosecution; and to have faltered at this critical juncture, at any hazard, however remote, of endangering the great interests entrusted to their charge, would have been to have deliberately invited the just censure of those to whom they held themselves accountable.

With these views the Board could not for a moment hesitate as to the proper policy to be pursued. After repeated efforts to bring their bonds to the favorable notice of capitalists at home and abroad, they finally succeeded in negotiating a sale of the whole amount applicable to the construction, at a limit of 80 per cent.

In reviewing the financial policy of this company, there is no measure which, it is believed, has contributed more to its substantial and lasting benefit than the sale of the coupon bonds, at the time and under the circumstances which attended this transaction.

The securities of this company, sound as the board believed them to be, could not claim, in the then unfinished state of the road, to stand upon a better footing than those of other works of a similar character; and it is a source of pride rather than regret, that this company should have been called to account in any quarter, for supplying their wants upon terms, at least as advantageous as any other similar work in this country, and more so than a majority of those whose prospects were such as to give to their securities the character of safe and permanent investments.

One of the consequences anticipated by the board, from the arrangement for the sale of the six per cent. coupon bonds, was its effect upon any future negotiation in which the company might find it convenient to engage. Accordingly, on the 24th of March last, proposals were issued for a sale of the remaining \$700,000 of the bonds, which had been estimated by the President in his report of October, for stocking the road. The aggregate amount bid for under this call, was more than \$3,300,000, at

rates ranging from 80 to 90 per cent. These bonds were subsequently awarded to the successful applicants, at an average of about 87 per cent.

Considering the state of the money market, in the relation which it bore to the period of the former sale, it will be seen that the first transaction compared most favorably with the latter, and that both exhibited results in the highest degree encouraging to the credit of the company, and their ability to bring their great work to a successful termination.

In the accomplishment of an enterprise of such fearful magnitude, it has been the policy of this board to reduce their money wants, whenever favorable opportunities occurred, without regard to fractional losses. The discount to which they might be exposed, in the sale of five hundred thousand or a million of bonds, was believed to represent but faintly the more ruinous sacrifices to which they would have been subjected, by a delay of a single month, in the opening of their road—to say nothing of the risk of a financial crisis, a total suspension of their work, and a general withdrawal of the public confidence, consequent upon the postponement of the prospect, which for so long a period has sustained this board and the community, in their untiring efforts to open a communication with the resources of the Great West.

The treasurer's exhibit will show that there has been expended, up to the close of the fiscal year, in the construction of the road west of Cumberland, including interest on capital, \$7,271,732 51, every dollar of which, with the exception of \$275,416 88, of notes outstanding, has been provided during the progress of the work.

When it is recollected that the present administration entered upon its duties with a debt of more than two hundred and fifty thousand dollars, such a result is certainly not without encouragement, and furnishes the best comment upon the policy which has been adopted and steadily persevered in unto this time.

In his address of October, 1849, the President stated the total cost of the road, upon the contract prices, and the estimates of the Engineer, at \$6,210,000.

In the last annual report, that officer still reiterated his belief that this result would not vary materially, and the committee have gone on to base their financial arrangements upon this estimate of cost.

Neither the President nor the board can hold themselves responsible for any variation which may take place in this exhibit, and the stockholders are referred to the report of the Chief Engineer, herewith appended, for an explanation of the probable excess over and above this estimate, which it will be necessary to provide after the road is opened to meet the demands of the Engineer department.

While, however, the board would refer to the report of the Chief Engineer, in explanation of the causes which have led to the increased cost of the road, over and above the original exhibit, they would be doing injustice to that officer, to withhold the expression of their satisfaction, that a result so favorable should have attended the winding up of so stupendous a work—a work which has been pressed forward under every disadvantage, and within a period unprecedented in the history of any similar enterprise. When it is recollected that the Erie road, during the last year of its construction, showed an excess of more than \$3,000,000 over the estimates of its officers—and that almost every work of any magnitude in this country has claimed a far more liberal margin for contingencies, it is certainly not a subject of surprise that this, the greatest of all, in its engineering features, and the difficulties with which it has had to contend, should reach its destination with so small a variation from its supposed cost, and the price at which it was originally let.

In comparing the cost of this road, as will be seen by the Engineer's report, with that of others which have been brought to a successful termination in different parts of the country, it will be found that a large margin still remains to justify a more ample expenditure than that which has been provided, for placing it in complete condition for any contingency that will be likely to occur. That its wants will be large cannot be doubted, if we are to be governed by the experience of similar works; but with

a trade such as we have reason to anticipate, the means will not be wanting to make such improvements as may be found indispensable, without encroaching on the dividends of the stockholders.

But the stockholders will observe, by reference to the statement of the President to the board in the sale of the last bonds of the company, that this excess in the cost of the work will not much exceed the financial exhibit which has been heretofore submitted by him, and published by order of the Board.

The total liabilities of the company, with their road in operation at the Ohio river, were assumed as follows:

\$3,200,000	Sterling 5%.
1,000,000	1867.
566,666	Iron Bonds.
1,128,500	Coupon Bonds of 1875.
700,000	do. do. 1880.

\$6,595,166
500,000 Contingencies.

\$7,095,166

To this amount was added \$1,000,000, for additional machinery and cars.

It will be perceived then, that a margin almost equal to that claimed by the Engineer in his accompanying report, had been anticipated by the President, in his exhibit in June last, and included by him in the aggregate liabilities of the company, on the opening of their road to the Ohio river.

Assuming the original estimate of the entire cost of the work, say ..... \$6,210,000  
And the amount expended up to this time, exclusive of interest, machinery, and about \$95,000 of notes outstanding applicable to construction ..... \$6,045,000

The balance to be provided would have been ..... \$166,000

And the company had in hand at the close of the fiscal year, after deducting interest on Maryland Sterling and Iron Bonds, to the 1st of January, inclusive, say ..... \$109,000

Showing that the Board would have been fully sustained in their provision for the completion of the road, had there been no deviation from the original contract prices, and the amount of capital upon which they were authorized to base their financial arrangements.

With a view to provide for the excess in the cost of the work, the committee of Finance deemed it advisable to resort to the temporary obligations of the company, at short dates, with a view to fund the same, at the earliest practicable day after the completion of the road, by a sale of the company's bonds to that extent.

When an application was made in May last, for an increase in the power of the company, the policy adopted by the board, in reference to the means necessary to be provided, was based upon the inexpediency of a further issue of bonds, at that time, in view of the margin which might be required by the engineer, and the necessity for promptly funding whatever excess might occur on the completion of the road.

The wisdom of this policy, although at first objected to by some, cannot now be questioned. Had the company thrown their bonds into the market, to the extent of a million of dollars, and followed this issue by the amount then anticipated, and now shown to be necessary, to meet the excess in the cost of the work, it could not have been otherwise than attended with an unfavorable effect, upon the limits at which these bonds would have sold. By awaiting the completion of the road, the securities of the company have now reached a limit, at which they may be made available without serious loss.

Under the arrangement adopted by the board, when the excess in the cost of the work shall have been funded, the road will then commence its operations with about \$1,000,000 of floating debt, contracted for engines and cars, and distributed over a period of three years from the 1st of January next, the period at which the road is expected to be opened to the Ohio river.

The board have never entertained the idea, by the proposed arrangement, of using the dividends

of the stockholders to meet these obligations as they fall due, without a full representative in the stock of the company, which the future may prove to be more valuable than money. If the revenue of the road should be only \$3,000,000, instead of the \$4,000,000 provided for by the general Superintendent in his report before alluded to, the amount appropriated from year to year, towards the payment of the obligations thus incurred would be worth more in the stock of the company at par, than a dividend in cash, at the same time that it would greatly benefit the credit of the road, by preventing a further increase of its permanent debt.

The board have abundant reason to rely upon a vastly increased trade on the completion of their work. Their effort has been to avoid unnecessary pressure upon the limited capital and resources of this community, and to draw upon the results of a certain and overwhelming trade, for the equipment necessary for its liberal and ample accommodation.

Sufficient is now indicated to show that the annual interest for which this road will be liable, including its large equipment and depot accommodation, will not exceed \$550,000 per annum.

Of the amount estimated as debt, nearly one half—that is to say, \$3,200,000—in a perpetual loan to the company, not redeemable until 1880, and then by the State of Maryland, to whom this company will be responsible for the interest; so that in fact the amount of debt for which provision is to be made by a sinking fund or otherwise, is about \$4,000,000, exclusive of excess in cost of road, viz:—\$566,666 67, payable in 1, 2, 3, 4, and 5 years, from the 1st of January, 1855, and the balance in 1867, 1875 and 1880.

It is confidently expected that the transportation of the mail, at the maximum charge of \$300 per mile—equivalent to \$114,000 per annum, and the revenue arising from express cars, running in connection with the passenger trains, will pay the interest upon the \$3,200,000 Sterling bonds of the State of Maryland.

The million loan for the Washington Branch which has not been brought into the above exhibit, is now reduced to \$762,416 57, as an offset against which the company own in that branch 10,326 shares of its capital stock, which for two years past has produced an interest of 8 per cent. These bonds, say \$762,416 57 fall due in 1854, and it is not doubted that the larger portion of this amount may be extended, if desired by the company, upon terms that will be satisfactory. The company may be said to represent an unencumbered interest in the Washington Branch of \$237,583 43, this being the amount of bonds heretofore cancelled and carried to the account of the sinking fund.

Upon the whole the board see no reason to doubt, from the high credit the company enjoys, and the extreme caution which has always governed their financial policy, that with the realization of the results confidently anticipated on the completion of the work, they will be able to meet all their expectations. What has been done from time to time, was always, in connexion with the matured plan, which they now have it in their power to present for the judgment of the stockholders; and if they have occasionally provoked censure, in the absence of explanations which it would have been inexpedient to make, they may hope now to reap the full measure of justice, to which they may be entitled. When the balance which will be outstanding on the completion of the road shall have been funded, the total amount, including say \$250,000 paid before the road was placed under contract, which has been provided and disbursed, will largely exceed \$7,000,000, and the company have emerged from this gigantic effort with renewed strength and credit. Her stock has advanced from 25 to 95 per cent, and her bonds, which were unsaleable to any large amount, when the road was placed under contract, are now in request at a fraction below their full par value.

#### VI.—WESTERN CONNECTIONS—NORTH-WESTERN BRANCH.

The Board have continued to watch with great interest the progress of the works already projected and now going forward west of the Ohio river.

The Central Ohio road is already under contract throughout its entire length, and is expected to be

in operation at the earliest practicable day. The importance of this line, and its early completion to the city of Baltimore, cannot be too highly estimated. The most friendly relations continue to exist between the two companies, and it will be the interest of both hereafter to conduct their operations in such a manner as to afford the strongest temptation both to passengers and tonnage. With this line complete the city of Baltimore will be within 26 hours of Cincinnati, at rates of speed far below the maximum which has been adopted on other routes, and the road cannot fail, under proper legislation, to command a large share of patronage.

From Cincinnati there are two lines projected and looking to a junction with the Ohio river, at or near Parkersburg. Since the date of the last annual report, the effort then making to divert one of these lines from its original destination at Belpre, the terminus of the Northwestern road, by a subscription conditioned upon a change of its corporate name, has been successful.

A glance at the map will show that while the abandonment of the original plan to intersect the Ohio river at Belpre, as a leading and paramount object, has accomplished comparatively nothing as to distance, in the approach to Marietta—the newly adopted terminus—the chasm which it may leave to be filled to secure a connexion with the Northwestern road, must operate injuriously as to any immediate results which may be expected to flow from its early completion. A temptation of \$350,000—less, it is understood, than the cost of the road from the nearest point of bifurcation on the direct line to Belpre, has established Marietta as the main terminus of this line on the Ohio river—leaving the company with their branch to Belpre yet to be provided for, and their road terminating at a point where there is no line to meet them, and the prospect of a connexion with Philadelphia, to say the least of it, remote. If the Cincinnati and Marietta road should advance with the rapidity we are led to believe, the necessity for a branch to Belpre, to connect with a market one hundred miles nearer than that which they are endeavoring to force, will become so urgent that it will be difficult to retard it, even until the completion of the main stem to Marietta.

This company must continue to regret the existence of a state of things which they have had no power to control. The desire of the city of Baltimore has heretofore been to connect herself with all roads; she has labored assiduously to secure the charter which now holds out such decided advantages to the Southern parts of Ohio, including Marietta, over their more northern rivals; and she can never cease, in common with this company, to view with surprise the plans which have been heretofore announced by the Cincinnati and Marietta company—plans which would seem to treat as secondary a connexion with the most direct line of road that can ever be projected, between the Ohio river and the Atlantic seaboard, with no other ostensible purpose than to foster connexions, not even fortified by the results of instrumental surveys, and yet among the uncertainties of the future; and in the face of the well-established fact that the Northwestern road gives them access to the Northern market of which they are in pursuit, and with which Cincinnati is already connected by shorter lines—by a continuous chain of existing railway, (with the Northwestern road complete,) as advantageous in all respects as the proposed line from Marietta to Wheeling; which, in order to meet the wants of the company, must rise like an exhalation from the beautiful river whose margin it is designed to skirt, and with whose cheaper transportation it must be fully prepared to contend.

In illustration of this view, the board would point to the well known fact, that Cincinnati is nearer to Wheeling and Philadelphia, by the Circleville and Central Ohio railroad, by about eighteen miles, than she would be via Marietta, the river line and the Hempfield road; and Chillicothe, Athens, and all other points upon the projected line of the Marietta road, are nearer to the Baltimore market by at least ninety miles than to Philadelphia by the Hempfield road. Marietta herself, in fact, can approach Philadelphia, supposing this to be her preferred market through the city of Baltimore, (with the Northwestern road complete,) by a finished line of railway, in about the same distance as by the

projected line with which she is endeavoring to fraternize. With the Circleville and Central Ohio road on the one side, commanding the through travel as against the Marietta and Wheeling road, and the Northwestern road on the other, holding out a temptation of more than eighty miles in favor of Baltimore, for articles of heavy tonnage within the attractions of Marietta, to say nothing of the almost nominal rates at which the river navigation would come into competition with any road which might be located along its borders, it needs no penetration to see that the project of a road to connect the southern portion of the State of Ohio with the city of Philadelphia by the Hempfield road, would be utterly fruitless.

The adoption of the plans above indicated, and their untoward effect upon Cincinnati and the whole of southern Ohio has led to more recent examinations and surveys, which cannot fail to attract the most lively interest both East and West of the Ohio river.

The surveys of Mr. Morris, Chief Engineer of the Cincinnati and Hillsboro' company, lately published by authority of that company, have established beyond controversy, that by far the shortest and best connexion between Cincinnati and the Northwestern road, is that which his explorations comprise.

The great line indicated by him, beginning at Cincinnati, runs through Hamilton county, along the borders of Clermont, Warren and Clinton, centrally through Highland, Pike and Jackson, across the lower township of Vinton, and diagonally across Meigs, and through the south-eastern corner of Athens, and the Southwestern corner of Washington.

From Hillsboro' east it connects at the town of Bainbridge, in a distance of 22½ miles with Paint Valley.

Near Piketon it intersects the great Scioto Valley, and connects with the Ohio State canal.

At Jackson, 56 miles from Hillsboro', and 111 from Cincinnati, it joins with the great Scioto and Hocking Valley railroad, which when continued to Newark, and connected with the system of railroads in operation beyond that point, will give to the city of Baltimore a direct connexion with the most prominent roads of northern Ohio. It will also give a connexion with Sandusky city in a distance of 530 miles.

"This extreme southern sweep across the State of Ohio," says Mr. Morris, "enables this line effectually to cut off all trade or travel coming from the South, and having either an Eastern or Western direction, for in both directions it furnishes the shortest possible route, and therefore (all other things being equal) ought unquestionably to secure the business. It is through this line that Baltimore, Philadelphia and New York will find their shortest and best route for commercial intercourse with Kentucky, Tennessee and the Great West."

The character of Mr. Morris as an engineer entitles his opinions to the most entire confidence, independently of the full endorsement which they have received from the Chief Engineer of this company, with which they go forth to the public.

While, then, the city of Baltimore and the Baltimore and Ohio and Northwestern companies cannot view with indifference any movement towards a connexion with the great line in which all are so deeply concerned, whether for primary or secondary objects of trade, and will be prepared at all times to extend the hand of welcome to the Cincinnati and Marietta company, for whatever they may be disposed to concede to Baltimore, in their seeming effort to patronize a market one hundred miles more distant, these great interests including the city of Cincinnati, can never disregard the importance of a line which, rising above all local influences, has been located with a single eye to the shortest connexion between Cincinnati and the Atlantic coast, and which, if carried out, as it will be, must inevitably become a link in the important combination which is designed to carry the through travel between St. Louis and the cities of the seaboard, through the city of Baltimore, as the nearest and most advantageous approach to any more Northern market.

It will be for the great interests so deeply involved, when the proper time shall have arrived, to deliberate gravely upon the steps proper to be taken,

to secure to Cincinnati and Baltimore, and the States whose commercial centres they are, the advantages which are likely to accrue from the great National highway, which this company for more than twelve years past, have been endeavoring to establish.

In the meantime, this company have the reliable assurance that should the Cincinnati and Marietta company desire, for the present, to unite with the Cincinnati and Hillsboro' company, on terms which may be deemed just and equitable, and which may not impair the chartered rights of either, but afford an unbroken chain of road from Cincinnati to a junction with the Northwestern road at Parkersburg, the one devoting their resources East and the other West, so as to give to their stockholders the earliest and largest return for their investment, an arrangement can be matured which may be mutually advantageous, not only to the stockholders but the public at large.\*

The board are happy to announce that the Northwestern road is now in the hands of contractors, and will be pressed to completion in the shortest practicable time. It is believed that no road has commenced its career with more encouraging prospects. The individual stock which is now nearly subscribed amounts to an aggregate of \$500,000. The city of Baltimore has extended her aid to an amount of \$1,500,000, and the Baltimore and Ohio railroad company are expected to contribute not less than \$1,000,000, making an aggregate of \$3,000,000 of available funds. The company will also endeavor to reduce their money wants by the purchase of their iron on time, and a reservation of one-fifth of the contract prices for graduation, masonry and bridging, until one year after the opening of the road for general business.

The steady perseverance with which the corporate authorities of the city of Baltimore have sustained this great charter, and contributed to the prosperous condition in which it has now been placed with the aid and co-operation of some of our public spirited citizens, gives earnest of the important results which are certain to flow from its completion.

It is believed that no step has been heretofore taken in connection with the internal improvement system of the State of Maryland, which has excited more interest both east and west of the Ohio river, or created more alarm among rival and conflicting interests. It places the city of Baltimore in a position from which she may look with indifference, upon all future efforts to retard her growth and prosperity. With her great arms stretching to the north and south, she will have done all that the enterprise of her citizens could suggest, to appropriate to herself the trade of the vast region to which her attention has been so long and anxiously directed.

In concluding this report, the board would invite attention to one other subject.

In the annual report of October, 1850, the attention of the stockholders was called to the fact, that a large amount of capital had been added to the stock of this road, by the appropriation of its earnings from time to time, through a long series of years, for which there had been no corresponding increase in the number of shares represented. To have divided this capital, in the shape of an extra dividend at any period during the progress of the work, or indeed before the revenue justified such an increase of capital, would have been eminently unwise, and must have resulted in the ultimate depreciation of the market value of the stock. The steady maintenance of its dividends was essential not only to the credit of the company, at a time when that credit was most needed, but was not less important to all the great interests connected with the road.

The period is now approaching when these reasons may no longer apply, and it will be the duty of the board at an early day, to ascertain to what extent the net earnings have been so applied since the commencement of the work, according to the standard adopted on all other roads; and to give

instructions to the "Finance Committee," that as soon as the increased dividends of the road shall, in their judgment, justify such action, to distribute among the stockholders an extra dividend, to the full extent of the net earnings which have been thus appropriated from time to time. The board feel satisfied that to have acted upon any other basis than that here indicated, would have been attended with injurious effects to the market value of the stock, as well as the general credit of the company among capitalists and business men.

It is now 26 years since the Baltimore and Ohio railroad company made their first annual report to the enterprising stockholders by whose capital and public spirit this board was called into being. Of those who stood prominent in its early organization, few have survived the delay which has attended the progress of this road, or will be present to rejoice with us in the work of final completion. In the animating prospects of the future, it becomes us, however, not to forget what is due to those who have borne a part in the conception of the grand idea which it embodies. History will do justice to the past as well as the present.

After years of delay, surrounded by embarrassments, and staggering under the vastness of the undertaking—with a credit almost exhausted—its few remaining friends scattered and disheartened—a community over-taxed—and an opposition rendered formidable by the honesty of the convictions under which they acted—this great work entered upon its extension from Cumberland to the city of Wheeling, a distance of more than 200 miles. Through every vicissitude of climate, obstructed by interminable rocks, or opposed by a succession of mountain barriers, altogether without a parallel in the progress of similar enterprises, by day and by night, it has pressed forward in such a march as human labor is seldom called to encounter, sustained only by that determined spirit which so strongly marks the character of the age in which we live; until it is now within reach of the goal for which it has been so long striving.

To this noble city what prospect it discloses! In the midst of a rivalry stimulated by the importance and magnitude of the results at issue, her mighty destiny is already proclaimed. The rich prize is within her grasp. The union of the Ohio and the Chesapeake, by the favorite highway which nature has indicated, is no longer among the probabilities of the future; and the city of Baltimore, so long retarded in her progress, may yet realize the glowing anticipations of that illustrious man—the first to foreshadow the results of so grand an undertaking—whose imposing column, as it towers in her midst, when it reflects the parting sun as it goes down upon the empire of western commerce, will look with renewed pride upon the enterprise and public spirit of a people whose indomitable courage has achieved the lasting glory of binding together these remote extremes of the union.

By order of the Board, THOMAS SWANN,  
President.

#### Sault Ste. Marie Canal.

The Lake Superior Journal states that the engineers, Capt. Canfield and Judge Burt, completed their surveys on the location of this work last week, and returned to Detroit, where the plans of the survey will be made out for the use of the general government and the state, in accordance with the provisions of the Act for the construction of the canal. The ground has been found quite as favorable for the easy and speedy construction of this work as was expected. In order to present the precise situation of the shores above and below the rapids, and the intermediate ground, several routes have been surveyed, which will enable the legislature, and parties proposing to interest themselves in its construction, to have a perfect understanding of the whole subject.

The length of canal on the longest line of survey, from the outer extremity of piers, above and below will be about thirty feet less than a mile; the shortest line would be considerably less. The longest route is considered as offering the greatest advantages, for while the additional expense would be but a trifle, and will not in the least delay the work, the longest route would carry the canal "up the head" into much stiller water in the bay above the rapids, affording an easier and more safe entrance

for vessels, and at the same time it would be more protected from the heavy currents of ice that sweep down in spring against the docks and shore at the termination of the shortest route.

#### Railroads in Texas.

The spirit of our neighbors of the young giant of the Southwest is fairly aroused upon the great question of the age—RAILROADS—the prime, and indispensable agency of improvements of every kind—without the encouragement of which, no country, whatever may be its natural advantages, can expect to advance, but, on the contrary, must inevitably retrograde. The people of Texas, fully appreciating her natural advantages, are so well satisfied that her immense resources must lie dormant, useless, and profitless, unless developed by means of railroads, that they have aroused themselves to a realizing sense of their condition, and seem determined to put to practical use the gifts that nature has so lavishly bestowed upon them. They are acting like common sense, practical, business people. They have the benefits of experience and observation to influence and direct them, by which they may take warning and profit. By extending the range of vision, and not to any great extent beyond their own borders, they can have a striking illustration of the effects of self-confidence and a fatuous dependence upon local and adventitious position and advantages. Though late in the field, they are not the last in the emulous race of progress, and a cheerfully bright and propitious future is opened to them, if they persist in that great attribute of free agency—helping themselves.

This move on the part of Texas, seems to be a spontaneous and general one, and hence indicative of their determination to persist, and ultimately succeed. It is one in which the people of New Orleans are intimately interested, and should serve as an incentive to provoke them to renewed and continued exertions to strive to appropriate to themselves the trade of that immense and inexhaustible country lying west of the Mississippi, and which at such an easy price, can be secured, if we only enter the field in due time, and with the determination to persevere until the great and glorious object is fully accomplished.

A large meeting was recently held in Palestine, Texas, in which some twenty counties were represented; the proceedings were deeply interesting, and the convention continued their session three days.

Another large railroad convention was held at Houston on the 4th inst., for the avowed purpose of taking into consideration the subject of building railroads to lead from the waters of Galveston Bay into the interior of the state. As we had before stated, a convention was held some time since at Galveston, with the view of adopting a railroad system, the ultimate object of which is to connect by railroads the interior of Texas with the Gulf coast. It seems that the plan recommended by the Galveston convention was approved and endorsed by the Houston convention, and preliminary steps taken to give it effect.

Among the resolutions reported and adopted, we notice one approving of the plan submitted by the Galveston convention, and advising a general convention of the state, for the purpose of consulting on a system of improvements by the state, to be recommended to the legislature for its adoption, and that the question of the Internal Improvement policy of Texas be submitted to the people, with a view to the permanent settlement of that policy by the people themselves. The convention also adopted a resolution to the effect that it is wise and expedient for the state of Texas, to engage vigorously in the construction of a system of railroads for the state.

It further recommended that the legislature should give to the respective counties the privilege of imposing a special tax for objects of internal improvement.

Our people will thus see at once that our neighbors are in council, and have put their hands to the work with a will and determination to carry it through. The prize is in our hands if we will only exert ourselves to secure it. Now is the accepted time to prosecute with vigor and untiring zeal our great road which is to penetrate northern and western Texas, and obtain the exclusive enjoyment

\* The President has received official information since the above was prepared, that a branch of the Cincinnati and Marietta road has lately been put under contract to Belpre, where it will connect with the Northwestern road.

of the richest trade in the world.—*N. O. Com. Bulletin.*

#### National Debt of Great Britain.

The *London Times* compiles the following particulars from a parliamentary return of the variations of the Public Debt of Great Britain during the last thirty years, both as regards the amount of principal and the annual cost for the payment of interest. It will be seen that the reduction in the principal effected during that period has been only £50,000,000 or 6 per cent., but that as regards the annual charge for interest it has been £3,326,424 or nearly 11 per cent. The lowest point at which the National Debt ever stood of late years was in 1834, when it had declined to £772,196,849, or to ten millions below the amount at which it now stands, the Emancipation loan in 1835, and the Irish Famine loan in 1847 having far more than counterbalanced all subsequent reductions. It is to be remarked, however, that owing to the conversion of the three-and-a-half per cents., and the low rates paid upon the unfunded debt, etc., the actual cost of these obligations is now smaller than at that period. During the next seven or eight years this charge will experience a further diminution of £3,207,500, of which £600,000 will take place by the three-and-a-quarter per cents., becoming three per cents. in October, 1854, while the cessation of the remainder will occur through the expiry of the Long Annuities in January, 1860, for £1,293,500, and of other annuities amounting to £1,314,000, during the intervening time. The annuity held by the bank for £585,700 does not terminate till 1867. The unfunded debt, which is included in the subjoined totals, was less in 1851 than in any other year of the series, its amount being £17,742,800. In 1832 it was as high as £36,981,150.

Year.	TOTAL DEBT.	
	Amount.	Cost.
1832	£332,811,295	£31,334,551
1833	826,443,364	29,478,454
1834	813,521,672	30,166,491
1835	806,122,467	29,197,187
1836	808,357,590	29,228,967
1837	805,023,742	29,417,543
1838	799,979,540	29,309,052
1839	796,741,482	29,156,611
1840	783,096,646	29,118,859
1841	781,095,234	28,341,416
1842	779,796,540	28,323,753
1843	779,565,783	28,522,507
1844	772,196,849	28,504,096
1845	787,525,466	28,514,610
1846	788,398,570	29,243,599
1847	786,3,9,738	29,489,571
1848	851,373,740	29,260,238
1849	786,512,734	29,454,032
1850	787,448,075	29,381,718
1851	790,874,608	29,450,145
1852	791,250,440	22,428,120
1853	799,576,392	29,269,160
1854	787,568,145	30,495,451
1855	785,053,022	28,253,871
1856	782,918,984	28,077,097
1857	790,349,361	26,144,537
1858	791,809,338	28,563,517
1859	790,927,017	38,323,960
1860	787,020,162	28,091,599
1861	782,889,382	28,017,127

#### Artesian Wells.

The Galena and Chicago Union railroad company, are now making the great experiment of procuring an ever flowing fountain, at their work-shop and round house. The contractor of the work, Mr. Honer, feels assured that good success will ultimately crown his efforts. After boring through several strata and sub-strata he struck a vein of ore which was reported over the city to be of lead, but which a more careful analysis proves to be Sulphure of iron. Now, at the depth of 190 feet, they are boring through a solid rock of marble. This admits of a very good polish, though most probably it is a side piece and consequently much coarser than the centre.

The well is now constantly full of soft good water. But the design of the company will not be satisfied without a good fountain. For this purpose they will bore to a depth of at least 600 feet. Many in our city are looking anxiously for the success of

this experiment, and among others, we shall rejoice in its accomplishment.—*Chicago Tribune.*

#### Massachusetts Railroad Statistics.

*Boston and Maine Railroad.*—Incorporated in 1833. Incorporated, originally, as the Andover and Wilmington Railroad. In 1837, the road was extended to Haverhill, and in 1839 to New Hampshire State line. In 1841 it was united with the Boston and Maine railroad, in New Hampshire, and the whole line was then called—"The Boston and Maine railroad." Opened (through) in 1843.—Length, (including branches) 83 miles. Length of double track, 29 miles. Cost, January 1, 1852, \$4,099,400.

The following table exhibits the operations of the road, during the last ten years; its cost, and the market price of the stock, at the beginning of each year. The item of "interest" is not included in the expenses:—*Boston Courier.*

Year.	Cost.	Value of stock.	Gross re-ceipts.	Running expenses.	Net income.	Dividends.
1842	\$79 per sh.	\$155,880	\$79,279	\$6,990	6 per cent.	
1843	83	178,745	91,755	6	"	
1844	103	233,101	127,621	10,480	6 1/4	
1845	109	287,063	139,335	14,728	7	"
1846	111	349,137	165,520	183,617	7	"
1847	112	511,505	205,026	205,479	9	"
1848	112	511,628	256,534	255,094	8 1/2	
1849	109	522,335	258,495	263,810	5 1/2	
1850	103	594,963	280,478	305,485	7	"
1851	106	633,095	305,068	328,027	7	"

#### Remarkable Feat of an Engine Man.

A Paris correspondent of the Washington Republic relates the following occurrence having taken place on the French Northern railroad. It is an example of the advantage that sometimes arises from meeting opposition with a bold front:

The passengers upon the Northern railroad narrowly escaped destruction some days ago. A large cart, laden down by the weight of an enormous block of stone, had become fastened in among the rails, and the efforts of the three horses to disengage it were perfectly unavailing. The whistle of the express train was heard in the distance. The wagoner, determined to save his horses at least, cut the reins and the harness and made off. The engineer saw the obstacle, reversed the steam, and gave the signal for the brakes. But the engine, which was a Crampton refused to obey, and the machinist saw the utter impossibility of stopping it in time, so he put on the steam again, and drove the train with full force upon the terrible obstacle. The wagon was snarled to atoms, and the stone sent flying in splinters for rods in all directions. The train was not thrown off the track, and the passengers were unaware of any shock. They did not hear of the danger they had run till they stopped at the next station. The engine was battered, but its vitality was not decreased. The engineer whose coolness and decision saved the passengers is a Pole, and

will be the object of some tribute of gratitude from the company.

#### Hudson River Railroad.

The Albany Argus has the following article relative to the improvements of the depots of the Hudson River railroad, at East Albany, and on the line of the road:

In anticipation of a large and increasing business, both in the passenger and freight departments, the company are erecting additional buildings for the accommodation of both. Upon the site of the old temporary passenger house in East Albany, a new one is being constructed, and south of it, and nearer the river, the foundations of a spacious freight house are already laid. The building is designed to be some 200 feet long by 75 wide. The foundation walls of stone are about 3 1/2 feet thick, and the superstructure is to be of brick.

The bed of the river in front of the freight house and near the shore is being excavated, and the dock extended some 150 or 200 feet south of its present termination. These additional facilities for the accommodation and comfort of the passengers, and the storing of freight, as well as the accommodation that will be afforded for shipping freight from vessels to the store-house, by the deepening of the channel and the completion of the new dock, are demanded both by the experience of the past year, and the well founded expectations of a large increase of business during the present fall and winter.

The receipts of the past year, ending the 1st of October, it appears, have exceeded the estimate by \$50,000, the receipts being over \$1,034,000. Properly conducted, there is nothing to prevent a continuous and steady increase in its business and resources. An immense amount of labor has been performed during the year along the entire road. Way station houses have been built and others completed at almost every stopping place. Another track of rail has been put down along portions of the line, and is now brought into use at several points where the trains pass. The entire double track will have been laid before the close of another year; and then with the guards or flagmen stationed every mile along the line, as now, the danger of accident will be diminished, and the trains run with more regularity and greater speed.

The work going forward at East Albany gives the entire ground in the vicinity of the railroad depot the appearance of the opening of a new settlement—and employment is given to a very large number of men.

#### Great Straight Line from Baltimore to St. Louis.

We learn from the Cincinnati Commercial that the operations on the Cincinnati and St. Louis railroad—the western link of the great straight line railroad that is to connect Baltimore with St. Louis—are advancing with steady rapidity; more than one thousand hands, with teams of horses, oxen, carts, barrows, etc., being now at work on the line, and the contractors and the company equally gratified with the progress making. These exertions it is designed shall not be relaxed until the entire work is completed. Of the financial condition of the company the Commercial makes a most favorable exhibit. The heavy county and private subscriptions in Indiana, have all been secured by the commencement of the work within the designated time and at the points conditioned for. All the subscriptions are of the best character, and the loan of \$600,000 of bonds from the city of Cincinnati is now at a premium. An arrangement has also been made with a banking establishment at Cincinnati, by which all the city bonds are to be taken at a premium when delivered, and all the county bonds are to be received on hypothecation at 90 per cent. At St. Louis financial arrangements have been made of no less value. Within sixty days it is thought, the entire subscriptions for the western end of the road will be secured. These statements, the Commercial says, are in no way exaggerated, but represent truly the prosperous condition of the company and the energy and promptitude with which its management are pushing forward the enterprise. We hope to see this energy emulated by ourselves, and shortly to record similar progress

making in the construction of our link—that from the Three Forks to the Ohio river at Parkersburg—being the most direct, shortest and best route by which the west can be connected with Baltimore, and through her, with the other cities of the Atlantic seaboard.—*Balt. American.*

#### Railroad Items.

The Corning Journal states that the track of the railroad from that village to Blossburg has been re-laid with rails of the same weight, and the gauge made to conform with that of the New York and Erie railroad.

The citizens of Elk county, Pa., have confirmed by a large majority, the subscription of one hundred thousand dollars, made by the county commissioners to the stock of the Sunbury and Erie railroad.

The work on the Canandaigua and Niagara Falls railroad is being pushed with great vigor by the contractors, Messrs King, Stencliffe and company. The grading is nearly finished between Canandaigua and Batavia, and some of the iron is being laid.

The earnings of the Watertown and Rome railroad for September were:

From passengers.....	\$17,605 45
From freight.....	13,740 59
Mail and express.....	961 19

Total.....	\$32,307 23
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The Watertown Jeffersonian says: The receipts for October promise to be even larger than September. The large quantities of bonded flour from Canada arriving at Cape Vincent, together with the heavy local produce business, must fully tax the conveying capacity of the road. These earnings are in excess upon the cost of the road, per mile, of several railroads in this and the Western states, whose stocks command high premiums; which circumstance cannot but be gratifying to stockholders in the Watertown and Rome road and the public in general.

The Poughkeepsie Eagle says of the Hudson River railroad:

The work of laying down a double track, to extend ultimately throughout the whole length of the road, has been commenced and is vigorously prosecuted on three different sections; the first from east Albany, south; the second from Tivoli to Hudson, and the third from Fishkill Landing to this place. On the northern section it is nearly finished as far down as Castleton; between Tivoli and East Camp, it will soon be ready for the rails, and also from Fishkill Landing to New Hamburg. The directors have decided to have it all completed from this place to Peekskill, to make a continuous double track to New York, as soon as possible. The different sections of double track will be brought into use as fast as completed."

We learn that the Belvidere railroad, from Trenton to opposite Easton, will be finished by the 17th of July next. The object of this improvement is to open a direct communication between Philadelphia and Easton. The road is already completed as far as Lambertville, sixteen miles above Trenton. One purpose of the line is to divert the traffic which now goes over the Central railroad from Easton to New York—so as to bring it via the Trenton railroad to Philadelphia.

The construction of the Wilmington and Manchester railroad has progressed rapidly. Some 76 miles are in operation; 46 at the western end, and 30 at the eastern end of the line. The whole length of the road, when complete, will be 162 miles, and the whole will be completed in 1853. The road is one of the most important links in the great chain of railways between New York and New Orleans.

The annual meeting of the Stonington railroad company was held on the 28th September, at which the old board of directors was re-elected, viz: Chas. P. Williams, Stonington, Conn.; Thos. Tileston, Wm. S. Wetmore, Matthew Morgan, Richard M. Blatchford, Samuel Jaudon, James Foster, Jr., Nelson Robinson, New York city; Nathan F. Dixon, Westerly, R. L. Charles P. Williams, president; Francis Amy, treasurer; James Rutherford, clerk.

The New Haven (Ct.) Journal says, that the route for the Providence and Fishkill railroad from Bristol to Waterbury, is located, and the contract made, under which it is to strike the Naugatuck road at Waterville, and then follow it to Waterbury.

The Chicago and Rock Island railroad is completed from Chicago to Joliet, and commenced operations on the 18th. At Joliet the cars connect with the morning and evening line of packets to La Salle and Peru, also with various lines of stages to Dixon, Peoria, Rock Island, etc., etc., and with the river boats at St. Louis. By the 1st of January the road will be open to La Salle, the head of navigation on the Illinois river, and to Rock Island by the 1st of July. Should this be accomplished, it will be one of the greatest achievements in railroad construction on record—180 miles in 18 months. Mr. Addison R. Gilmore, the former efficient agent of the New Haven road, and who was connected with it from the commencement is now the superintendent of the Chicago road.

The New London Chronicle says the cars of the New London, Worcester and Palmer railroad, came down to the joint depot on Monday, thus connecting with the New Haven and New London road. There is now, therefore, uninterrupted railroad communication from New York to Norwich, and as soon as the very short track is laid down in the latter city—a quarter of a mile being all that is wanted to complete the connection of the two southern roads with the Norwich and Worcester—the line will be continuous from New York to Boston.

A recent meeting of the stockholders of the York and Cumberland road, the president of the Susquehanna project stated that there were subscribed to the latter \$200,000 by the county of Northumberland, Penn., and in case the road was continued to Williamsport, the county of Union was under obligation to subscribe \$250,000. Besides these subscriptions there were others by individuals in the counties of Dauphin and Northumberland, amounting to nearly \$75,000, thus making the subscriptions, in case the road was only continued far as Sunbury, amount to \$275,000; and if continued as far as Williamsport to between \$500,000 and \$600,000. He had no doubt the individual subscriptions could be largely increased in those counties, but the inhabitants there were awaiting the final expression from the York and Cumberland company in relation to the negotiations now pending between them and the Susquehanna company, respecting the contemplated loan of \$500,000 made by the York and Cumberland company, and guaranteed by the city council of Baltimore, nor would they subscribe until the result of this negotiation was known. The expense of constructing the road from Bridgeport to Sunbury would be about \$1,100,000. \$20,000 per mile, the distance being 55 miles. To complete the work to Williamsport, an additional distance of 42 miles, would require an expenditure of about \$2,000,000.

The Sodus Bay and Southern railroad has been placed under contract. There was a great celebration at Sodus Point on Thursday, 28th Sept., to commemorate in an appropriate manner, the commencement of the event.

The Jeffersonville and Columbus (Indiana) road says the Louisville Courier, is entirely completed and well stocked with locomotives, cars, etc.

The Lake Shore road is now in operation from Cleveland to Springfield, within 20 miles of Erie. Ten more miles are nearly ready for the cars, and the short gap will be closed before fall navigation is over. Passengers leaving Buffalo in the evening by railroad now reach Cleveland the next morning.

Regular passenger trains are to commence running upon the Androscoggin R. R. between its junction with the A. & K. road, and Livermore Falls on the 1st of November. Its rolling stock is being received in as fast as it can be conveniently brought over the Boston and Maine road.

The engineers are progressing rapidly with the survey of the Janesville and Dubuque railroad. The company design to have the road under contract next spring, and finished, if possible, in two years. This railroad settles the fate of Dubuque.

It is stated that the Brunswick and Florida railroad company, of Georgia, have contracted in England, for the iron necessary to lay the track from the port of Brunswick, 130 miles, to Thomasville. The contract is a favorable one, having been concluded before the recent advance in iron. The rails are delivered in Brunswick and payment is to be made partly in cash and part in the 10 year bonds of the company at par.

It is in contemplation to build a railroad from Yorktown to Richmond, Va. A convention is to be held at Yorktown on the 19th of October, and the citizens of the surrounding counties have been invited to attend, for the purpose of advancing the proposed scheme.

We learn that the Gov. of Tennessee has issued under the general Internal Improvement law of that state, \$240,000 in state bonds to the Memphis road nearly complete. It will soon be entitled to more for the additional miles to Lagrange. Tennessee is a state, with public spirited men in its counsels. Col. Mills, the president of the road, has gone to New York with the bonds to sell them. They are worth 7 to 9 per cent premium.

The Iron Mountain and Lake Superior railroad, under the direction of Henry B. Ely, Esq., who is well known to the public as a man of enterprise, is steadily advancing. The road is already surveyed and located, from the lake to the Jackson Iron Mountain. About half the route is grubbed and cleared and the grading has been commenced. Next season will see the road completed and in use sooner in fact than our Sault canal, with the best exertion which may be used, can be constructed.

Few persons are aware of the enormous resources in iron, which will be poured forth from this source, when the channel is once opened. No portion of the United States can furnish a greater quantity, a purer and better article, or one which will be more accessible to market.—*Lake Superior Journal.*

Mr. F. G. Fowler, one of the conductors upon the Charlotte railroad, has adopted a plan for driving cattle off the track, which we think a capital arrangement and should be adopted by conductors on the various roads generally. It is to station a man with a gun, well charged with small shot, on the front of the engine, who when the cars approach cattle, on the track, is to shoot them in the flank or rump, which will not injure them, but serves more effectually than any thing else that has yet been tried, to keep them at a distance afterwards.

We understand from Mr. Fowler that cattle which have already been stung in that way, invariably make tracks on the approach of a car, as they seem not to like being shot at.—*Windsor Register.*

At this present writing, Oct. 8th, the rails of the Toledo, Nowalk and Cleveland railroad are laid a mile or more beyond us, and are progressing rapidly. The locomotive now passes our village daily, and we seem to realize that we shall be put in railroad connection with the Eastern and Western world.

At the close of this week we estimate that one-half of the entire length of our track will be laid, embracing about 35 miles on the western division, and ten on the eastern.—*Oberlin Evangelist.*

From information at our disposal, we doubt not that the extension of the South-Western railroad to Americus in Sumpter county, will be completed in all the year 1853. The same may be said of the Columbus and Opeleka railroad. The connection from Fort Valley on the South-Western to Columbus will be completed by March or April next, and the connection with Augusta (via Waynesboro) will be secured on or before the 1st August next.—*Sav. Republican.*

The receipts of the Central Ohio railroad for September amount to \$5,373 83, and for the two weeks ending 19th October, \$3,016 89. The number of passengers in September was 5,764, and in the two weeks of October, 2,937.

This road is finished about forty-eight miles westward from Zanesville, or within ten miles of Columbus, its western terminus and its present leading connection is with the Mansfield and Sandusky road running to Lake Erie. By the 1st of December the remaining ten miles will be constructed

—when it will be at once in connection with the great lines running west, south-west, and north-west, having their eastern termini at Columbus. This will then form its main connection, and its receipts will be greatly multiplied. The eastern portion of the Central Ohio road, Zanesville to Wheeling, is now under contract.

## American Railroad Journal.

Saturday, October 30, 1853.

### Columbus, Piqua and Indiana Railroad.

We learn that this project is making very satisfactory progress, both in the department of construction and in raising the means necessary for this proposed end. We have it from good authority that the company has recently made a very satisfactory sale of its bonds in this market, which places them in possession of ample means for the completion of the road, which is being urged forward with dispatch.

The line of the above road extends from Columbus, the capital of the State, to the Indiana State line at Union, 102 miles, where it will form a junction with the Indianapolis and Bellefontaine railroad, now on the eve of completion. On the East, it is to connect with the Steubenville and Indiana railroad now in progress, and extending from Steubenville to Columbus, a distance of 149 miles. The above roads therefore will constitute the complements of one great line, of 251 miles, traversing the entire State centrally from East to West, taking Columbus, its capital, in its course.

The above road will not only form a great line through Ohio, but also a part of a great line extending in a very direct course, from the sea coast to the Mississippi river. The friends of this line claim it to be the shortest line yet proposed between New York and Philadelphia and Indianapolis. By the tables annexed to a map recently published by the Columbus, Piqua and Indiana company, the distance from Philadelphia to Indianapolis is stated to be only 891 miles, as follows:

From Philadelphia to Pittsburgh	.....	335 miles.
" Pittsburgh to Steubenville	.....	40 "
" Steubenville to Columbus	.....	149 "
" Columbus to Union	.....	102 "
" Union to Indianapolis	.....	83 "

Total..... 891 miles.

Whatever may be its merits as a short line, compared with other routes, in itself, it is certainly a strong one, and cannot fail to strike the public eye in a very favorable light. From Philadelphia, and in fact from New York, the whole line will have an uniform gauge to the Mississippi, which is true of no other yet proposed. This fact will tend, with other things, to give to the whole of the above the aspect of one great homogeneous interest, and will undoubtedly secure that harmony and concert of action calculated to promote in the highest degree, the advantage of all the members to it.

The route of the Columbus, Piqua and Indiana road traverses one of the most fertile, productive and well settled portions of Ohio, filled with large and flourishing villages, composed of an active and thriving population. It will have a heavy local in addition to its through traffic; and we cannot doubt that the project will prove an excellent investment, even for an Ohio road. Its affairs, from the outset, have been conducted with marked ability, and the project has made a very favorable impression upon the minds of capitalists in this city, although no effort has been made to give it public notoriety.

### Terre Haute and St. Louis Railroad.

We understand that the President of this road, Mr. Brough, is in this city, for the purpose of making arrangement for the immediate commencement of work upon this proposed road. We learn it is the opinion of the best lawyers in New York, that the company, having secured the right of way upon the whole line, is competent to construct the road, without any further legislation on the part of the State of Illinois. The present general railroad law of the State of Illinois provides, that so soon as a stock subscription shall be made, at the rate of \$1,000 per mile, for the whole line, and ten per cent of this amount, paid in cash, a company may organize by choice of officers, and may survey and locate their line, which location shall be subject to the approval or rejection of the Legislature, by a subsequent act. The company having obtained the right of way upon the whole line, will not be compelled to resort to courts of law for condemnation of lands. It is claimed, that in such case, the necessity of obtaining further sanction from the Legislature is obviated.

We also learn that there will be no difficulty in obtaining a stock subscription in this city necessary to build the road. The project is looked upon by our most intelligent men, as presenting one of the best opportunities for investment ever afforded in this market, and we should not be surprised to see the stock go up to a handsome premium, as soon as the subscription shall be completed. It will be taken we have no doubt, under such expectations.

It seems, therefore, that the State of Illinois is about to have a very important line of road built, and a very large sum of money expended within her limits, in the face of the most vigorous opposition to prevent such calamities. It is the first case of the kind on record in this country, we believe.—We presume that in time the people will become reconciled to such a flagrant violation of their rights, even though it should build up their legitimate markets, and create an increased demand for their products.

The right to build the above road is, as already stated, denied by the people of Illinois, and the first overt act of construction, will be made the subject of legal action, by which the rights of the parties in the premises will be determined. Should it be in the affirmative, then the company will have nothing to do but go ahead. On the contrary, should it be adverse to the right to proceed, such a decision will undoubtedly be had before any large expenditures are made. The legal questions in this case can be made with very little liability of loss, and we are glad to learn that an opportunity is forthwith to be presented.

### Great Railroad Convention.

The Syracuse Journal says: "There is a movement on foot for the holding of a national railroad convention somewhere in the great West, at a time to be named hereafter.—The railroad interest of the country is becoming extensive; reaching from the rock-bound shores of New England, far toward the Rocky Mountains. The states of Indiana, Illinois, Missouri and Iowa are alive to this means of inter-communication, and links and extending lines of railroads are in contemplation and under contract, which will soon send the iron horse in every direction throughout these new, but fertile and flourishing states. The object of the projected convention is to bring the people of the east, west, north and south together, for the purpose of consultation and

the requisition of necessary intelligence relating to the interests of the country. Mr. William M. Hall, who was somewhat instrumental in getting up the great River and Harbor conventions at Chicago, in 1847, is now engaged in this enterprise, and is on a trip to the northern and eastern states to awaken an interest upon the subject.—Great good must accrue to the railroad interest by holding the proposed convention.

### Maine.

*Oldtown and Lincoln Railroad.*—At a meeting of the directors of the Oldtown and Lincoln railroad company, held a few days since, Samuel Veazie was chosen President of the corporation; Charles Stetson, Treasurer; and John A. Peters, Clerk.—Measures are to be taken to push the building of the road, and secure its early completion.

### Journal of Railroad Law.

#### CONSTRUCTION OF A RAILROAD GRANT.

The principles upon which grants restrictive of legislative authority are construed by the courts, is illustrated by a portion of the decision of the Supreme court of Massachusetts, in the case of the *Boston and Lowell railroad corporation vs. the Boston and Maine Railroad Co.*, reported in 5 Cushing, p. 385.

"It was argued on behalf of the plaintiffs that, the defendants have connected themselves with the Boston and Maine extension railroad, and through that connexion are diverting travel from plaintiffs' road. The connexion is admitted, and the question is presented, whether this use of that road is a violation of plaintiffs' charter. Their charter provides "that no other railroad shall within thirty years be authorised to be made leading from Boston, Charleston or Cambridge to Lowell, or from Boston, Charleston or Cambridge to any place within five miles of the northern termination of the Lowell railroad."

The plaintiffs contend that this clause for the exclusion of other roads goes to the extent of excluding defendants from having another road within the limits, which would be included between the limits of two diverging straight lines drawn from Boston, or the termination in that direction, to such points that each would be five miles distant from the northern termination of the Lowell railroad.

We do not coincide in this view of the construction of the clause in question. Such a limitation might have been provided in the charter of the plaintiffs, and, if so, it ought certainly to be enforced. Public grants are to be construed with some degree of strictness, and especially when they are in the nature of limitations upon the future exercise of legislative power.

It seems to us that the provision under examination, is no more than a restriction, that no other railroad should within thirty years be established under a legislative grant, leading from Boston, or the other towns named, to Lowell; nor one leading in the same general direction and terminating within five miles of the northern termination of the Boston and Lowell railroad. It left *free* the construction of other roads from Boston and the adjacent towns, leading in other directions; and by the limitation as to the five miles, it was intended to prevent any fraudulent evasion of the restriction by means of another road not actually terminating in Lowell; yet so near it that it would be a rival road to Lowell. To secure this object, five miles on each of the terminations of the road at Lowell was taken as the actual exclusion of other roads; leaving such roads however, to be established, passing

more than five miles distant from the northern termination of the Boston and Lowell road. The defendants are not liable to plaintiffs for participation in the construction and use of the Boston and Maine extension.

#### Quartz Mining in California.

We beg leave to refer our readers to the advertisement of the *Volcano Quartz Mining Company*, to be found in another column. Connected with it they will recognize an old friend, the former proprietor of the Journal. This company certainly offer some of the best inducements to take stock in the above project, in the shape of some specimens of gold bearing quartz, the most splendid, we will venture to say, ever exhibited in this city. A company has been formed for the working of the vein from which the vein was taken, in which are embraced some of our most highly respected citizens. We have the prospectus of this company, which embraces a vast amount of valuable information in reference to the whole subject of Quartz mining in California, to which we shall refer on a future occasion.

Our readers will notice that the books of subscription to the capital stock of this company are to be opened in this city on the 30th inst.

#### Alabama.

*Nashville and Florence Railroad.*—The *Florence (Ala.) Gazette* of Saturday last says: "We have the most encouraging accounts of the prospects of the Nashville and Florence railroad. The route from here to Nashville is being thoroughly examined, and we learn that the company will arrive at Florence in a few days. Mr. Hazlehurst, one of the most talented, efficient and popular engineers, has been in Florence during the past week, and leaves for Aberdeen for the purpose of commencing operations on that part of the line. The road from here to Nashville will soon be located, and contracts will be let out some time between this and Christmas. Indeed everything is working well.

#### To Contractors.

Contractors will find in our paper of to-day, a notice of some important lettings upon the great New Orleans and Jackson railroad.

#### Pennsylvania.

*Hanover Branch Railroad.*—The completion of this road to Hanover, will be celebrated in that borough on Friday next, by a grand jubilee. The cars will make frequent trips over the road, and will carry *gratuitously* all who wish to ride. In the afternoon the guests will be provided with dinner on the commons or in the freight house. Several distinguished gentlemen are invited; and it is intended that the celebration will be worthy the occasion. Military companies from York and Baltimore, with fine bands of music will be present.

The *Hanover Spectator* in announcing the completion of the road, says:

In announcing this gratifying event to our readers, we cannot refrain from alluding to the extraordinary encouragement which the road is receiving. It has been in operation only a little over two months, and for the greater part of this time laboring under great disadvantages, having no facilities for the loading and unloading of freight, and presenting but few inducements to the traveling public, yet its receipts it is believed, will fall little short of paying all expenses and a handsome dividend on the stock. We have not now the means of ascertaining the exact amount of freight carried over the road, but the judgment of others and our own observation, would place it as not less than one hundred tons per day. This business is constantly increasing, and for many months to come it will be limited only by the rapidity with which the freight can be sent; and the amount of travel

shows a uniform steady increase, although, thus far, no special efforts have been made to divert it from other routes.

In fact, the directors have devoted their whole energies to the most desirable object: the completion of the road. This done, we may look for such modifications of existing arrangements as will seem demanded by the public and the interests of the stockholders.

#### Stock and Money Market.

There is an improved feeling in the stock market which has extended to every variety of securities, and prices are considerably in advance of the past week. Money continues abundant, and there is an active demand for first class stocks and bonds. In bonds, recent sales of Erie first mortgage have been made at \$115; Incomes, 98 $\frac{1}{4}$ ; Convertibles 1862, 98 $\frac{1}{4}$ ; 1871, 97 $\frac{1}{4}$ ; Hudson 2d mortgage, 103; Michigan Southern, 102; Northern Indiana, 98 $\frac{1}{4}$ ; Government and State stocks are firmly held.

A sale of \$10,000 Georgia 6's was made at 109, and \$10,000 California 7's at 94. The stock market is also buoyant and active. Late sales of Pennsylvania Coal company have been made at 115, Dauphia 6 $\frac{1}{2}$ , Delaware 130 $\frac{1}{2}$ , Michigan Southern at 128, a further advance of 1 per cent.; Madison went to 109 $\frac{1}{4}$ , an improvement of 1 $\frac{1}{4}$  per cent on the last sale; Albany and Schenectady 106 $\frac{1}{2}$ ; Rochester and Syracuse 121; Panama Scrip 135, which is an advance, 8 per cent., on the last sale.

For securities of new works the demand is fair, and companies entitled to credit, find no difficulty in supplying their wants at favorable rates.

#### Railway Share & Stock List;

CORRECTED WEEKLY FOR THE  
AMERICAN RAILROAD JOURNAL.

NEW YORK, OCTOBER 30, 1852.

#### GOVERNMENT AND STATE SECURITIES.

U. S. 5's, 1853	102 $\frac{1}{4}$
U. S. 6's, 1856	109
U. S. 6's, 1862	116
U. S. 6's, 1862—coupon	115 $\frac{1}{4}$
U. S. 6's, 1867	118 $\frac{1}{4}$
U. S. 6's, 1868	119 $\frac{1}{4}$
U. S. 6's, 1868—coupon	119 $\frac{1}{4}$
Indiana 5's	98 $\frac{1}{4}$
Indiana 2 $\frac{1}{2}$ 's	54 $\frac{1}{2}$
" Canal loan 6's	95 $\frac{1}{4}$
" Canal preferred 5's	42
Alabama 5's	97
Illinois 6's, 1847	83
Illinois 6's—interest	55
Kentucky 6's, 1871	110
Massachusetts sterling 5's	—
Massachusetts 5's, 1859	—
Maine 6's, 1855	—
Maryland 6's	107 $\frac{1}{4}$
New York 6's, 1854-5	109
New York 6's, 1860-'61-'62	117
New York 6's, 1864-'65	120
New York 6's, 1866	123
New York 5 $\frac{1}{2}$ 's, 1860-'61	110
New York 5 $\frac{1}{2}$ 's, 1865	112
New York 5's, 1854-'55	108
New York 5's, 1858-'60-'62	112 $\frac{1}{4}$
New York 5's, 1866	117
New York 4 $\frac{1}{2}$ 's, 1858-'59-'64	101
Canal certificates, 6's, 1861	—
Ohio 6's, 1856	106
Ohio 6's, 1860	110
Ohio 6's, 1870	115
Ohio 6's, 1875	117
Ohio 5's, 1865	103
Ohio 7's, 1851	105 $\frac{1}{4}$
Pennsylvania 5's	96 $\frac{1}{4}$
Pennsylvania 6's, 1847-'53	91
Pennsylvania 6's, 1879	99 $\frac{1}{4}$
Tennessee 5's	92
Tennessee 6's, 1860	107 $\frac{1}{4}$
Virginia 6's, 1886	111 $\frac{1}{4}$

CITY SECURITIES—BONDS.	
Brooklyn 6's	105
Albany 6's, 1871-1881	107 $\frac{1}{4}$
Cincinnati 6's	101
St. Louis	96 $\frac{1}{4}$
Louisville 6's 1880	96 $\frac{1}{4}$
Pittsburg 6's, 1869-1871	100 $\frac{1}{4}$
New York 7's, 1857	108
New York 5's, 1858-'60	102
New York 5's, 1870-'75	104
New York 5's, 1890	106 $\frac{1}{4}$
Fire loan 5's, 1886	—
Philadelphia 6's, 1876-'90	105 $\frac{1}{4}$
Baltimore 1870-'90	106 $\frac{1}{4}$
Boston 5's	103

#### RAILROAD BONDS.

Erie 1st mortgage, 7's, 1867	115
Erie 2d mortgage, 7's, 1859	104
Erie income 7's, 1855	98
Erie convertible bonds, 7's, 1871	97 $\frac{1}{4}$
Hudson River 1st mort., 7's, 1869	106 $\frac{1}{4}$
Hudson River 2d mort., 7's, 1860	99 $\frac{1}{4}$
New York and New Haven 7's, 1861	106 $\frac{1}{4}$
Reading 6's, 1870	102
Reading mortgage, 6's, 1860	94 $\frac{1}{4}$
Michigan Central, convertible, 8's, 1860	110
Michigan Southern, 7's, 1860	102
Cleveland, Col. and Cin. 7's, 1859	114
Cleveland and Pittsburg 7's, 1860	102
Ohio and Pennsylvania 7's, 1865	104 $\frac{1}{4}$
Ohio Central 7's, 1861	96

#### RAILROAD STOCKS.

[CORRECTED FOR WEDNESDAY OF EACH WEEK.]

	Oct. 28.	Oct. 21.
Albany and Schenectady	106	105
Boston and Maine	107	107
Boston and Lowell	109	109 $\frac{1}{4}$
Boston and Worcester	105	105
Boston and Providence	89 $\frac{1}{4}$	99 $\frac{1}{4}$
Baltimore and Ohio	89	98 $\frac{1}{4}$
Baltimore and Susquehanna	29 $\frac{1}{4}$	30
Cleveland and Columbus	—	—
Columbus and Xenia	—	—
Camden and Amboy	149	—
Delaware and Hudson (canal)	128	130
Eastern	97 $\frac{1}{4}$	98
Erie	87	85 $\frac{1}{4}$
Fall River	—	—
Fitchburg	103 $\frac{1}{4}$	104
Georgia	—	—
Georgia Central	—	—
Harlem	71 $\frac{1}{4}$	70 $\frac{1}{4}$
" preferred	111 $\frac{1}{4}$	111 $\frac{1}{4}$
Hartford and New Haven	—	129
Housatonic (preferred)	35	35
Hudson River	75	74
Little Miami	—	—
Long Island	28	25 $\frac{1}{4}$
Mad River	—	99
Madison and Indianapolis	107	106 $\frac{1}{4}$
Michigan Central	110 $\frac{1}{4}$	111
Michigan Southern	126	126 $\frac{1}{4}$
New York and New Haven	113	113
New Jersey	134	128
Nashua and Lowell	—	—
New Bedford and Taunton	—	117
Norwich and Worcester	51	50
Ogdensburg	26	25 $\frac{1}{4}$
Pennsylvania	46 $\frac{1}{4}$	46 $\frac{1}{4}$
Philadelphia, Wilm'gton & Balt.	35	35
Petersburg	—	—
Richmond and Fredericksburg	105	97 $\frac{1}{4}$
Richmond and Petersburg	35	35
Reading	98 $\frac{1}{4}$	97 $\frac{1}{4}$
Rochester and Syracuse	121	121 $\frac{1}{4}$
Stonington	58	58
South Carolina	—	122 $\frac{1}{4}$
Syracuse and Utica	130	130
Taunton Branch	115	115
Utica and Schenectady	141	138
Vermont Central	17 $\frac{1}{4}$	17 $\frac{1}{4}$
Vermont and Massachusetts	29	29 $\frac{1}{4}$
Virginia Central	—	40
Western	104 $\frac{1}{4}$	104 $\frac{1}{4}$
Wilmington and Raleigh	57 $\frac{1}{4}$	57 $\frac{1}{4}$

#### Railroad Lanterns.

Our readers will find an advertisement of every variety of railroad Lanterns in another page.

For the American Railroad Journal.

**Short and Long Lines of Railroad.**

H. V. POOR, Esq.:

Your remarks in one of your late numbers, as to the extension of the railway system—particularly in the Western and Eastern States—and of the increased profits, as the several links are brought together on *thoroughfares*, has led me to look upon the following extract of "Facts and Suggestions," which was prepared as early as 1833, to advance the construction of a railway to Albany.

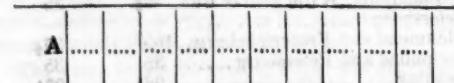
"It is often said that those railways only can be profitable which are of moderate extent, and which unite great cities or thoroughfares; and the case of the Liverpool and Manchester railroad is often referred to as a case in point. \* \* \* This matter is generally understood by our Civil Engineers, and it is admitted that in penetrating a secluded country, although the distant portions of the work may, if separately considered, fail to remunerate for their construction, yet the increased mileage of the remote trade, on the more frequented portions of the work will more than compensate for the deficiency.

In order to give a correct illustration, we will suppose ten separate districts of country of equal dimensions, and furnishing an equal amount of tonnage and passengers, each district to be intersected through its geographical center by a railway, leading to a market on one of its borders at the point A, as marked in the annexed diagram.



We will for the sake of mechanical exactness, further suppose those districts to be ten miles square, and the equal products and travel of each to be drawn to the several railways at points which shall average the mileage at that which is the common center of each district. It is obvious that the average distance which the products will be carried on each railway is five miles, and if the total amount of tonnage or passengers be 5,000 in each district, it will at one dollar per ton or passenger for this distance amount to \$5,000. If we now take the aggregate of the ten railroads in the several districts, estimated by the same rule, the aggregate income for the 100 miles, will amount to \$50,000. This is a fair exhibition of the operation of railways in single isolated districts, each leading to its local market.

We will now examine the effect of a continuous railway through the same number of districts of like dimensions, and furnishing a like amount of tonnage and passengers, the entire length of railway being the same as before, but leading to a common market at the termination of the tier of districts, as at A, in the following diagram.



It is here evident that the tonnage or passengers of each district, will pass the same average number of miles in the districts as in the former case; but mark the difference which is as follows: The tonnage of the district at the market A will reach its destination in travelling an average of 5 miles, from the common center of the district; but the products of the second district, after travelling the same distance, must pass through the entire length of the first district, or an average distance of 15 miles, and the tonnage of the 3d district must pass

in its turn 25 miles; producing the following results:

From 1st district to market at A, estimated 5 miles, cost of transportation .....	\$5,000
Do. 2nd dis. to market at A, estimated 15 miles, cost of transportation .....	15,000
Do. 3d dis. to market at A, estimated 25 miles, cost of transportation .....	25,000
Do. 4th dis. to market at A, estimated 35 miles, cost of transportation .....	35,000
Do. 5th dis. to market at A, estimated 45 miles, cost of transportation .....	45,000
Do. 6th dis. to market at A, estimated 55 miles, cost of transportation .....	55,000
Do. 7th dis. to market at A, estimated 65 miles, cost of transportation .....	65,000
Do. 8th dis. to market at A, estimated 75 miles, cost of transportation .....	75,000
Do. 9th dis. to market at A, estimated 85 miles, cost of transportation .....	85,000
Do. 10th dis. to market at A, estimated 95 miles, cost of transportation .....	95,000

\$500,000

Thus it appears that the amount of income or compensation derived from the same amount of tonnage or passengers, from the same number of districts, or a continuous railway of the same aggregate extent, but leading through the several districts in sequence to a common market, will amount to \$500,000, being ten times the amount, which the same business will afford on ten local railways of ten miles each, while from the more simple economy in the superintendence and management of the longer route, the aggregate expenses would be but little increased.

We find, therefore, that extended lines of communication, leading from great market towns towards the interior are by far the most profitable, especially in a country of such wide extent as our own; and it is only the converse of the objection that holds true, viz: That short lines of railway or canal cannot be made profitable in this country, unless uniting important cities or great lines of communication.

This doctrine has been fully exemplified in the construction of the Western railway of Massachusetts, as well as the New York and Erie railroad, and we may add the Erie canal. The laterals, do not pay one per cent on their cost, but make a grand aggregate, when added to the tolls on the main trunk.

Permit me while you are noticing the several branch railroads from Sodus Bay, etc., to the Erie railroad, to draw your attention to a railroad that is projected—from Syracuse to intersect the Rome and Cape Vincent railway, at a point near Kasoag, or not far from the Sand Banks, Oswego county. If you will look at the map, you will perceive that 30 miles of railway fill up and make a continuous line in the direct travel from Philadelphia, via Binghamton and Syracuse to Cape Vincent, Ogdensburg, and of course Upper Canada, uninterrupted by Lake Ontario.

On another occasion I may give you further information on this subject.

J. E. B.

**New York.**

The Saratoga Whig says that the work of the Albany and Eagle Bridge railroad is in rapid progress along the whole line, and is nearly completed and will soon be in operation as far north as Waterford, passing through West Troy and Cohoes. The abutments for the bridge over the Hudson river, three miles north of Waterford, will soon be finished and ready for the superstructure, and much of the grading on either side of the river, for several miles has been finished. It is predicted that this road, when completed to Eagle Bridge, will do an extensive and profitable business.

**Vermont Central Railroad.**

At the annual meeting of the stockholders of this company, recently held at Northfield, Mr. Wm. Raymond Lee from the Committee of Investigation, made a verbal report of the result of their investigations into the affairs of the company, and alleged charges against some of the directors and officers of the road. Mr. Lee stated that, there had been a manifest want of system in the records of the corporation, the stock list had been kept very imperfectly, but is now correct. The bond account was quite imperfect also. Mr. Quincy had received bonds which do not appear on the books, and \$30,000 of bonds are charged to him which he did not receive. The late Mr. Belknap had also \$22,000 of bonds of which there is no record on the books.

The committee report that they do not consider the salary of the president, Mr. Paine, \$5000 per annum, too high for a person competent for the place. The directors had also purchased from him land for a depot; this they did with the advice of experienced business men. They also find that the president has loaned large sums to the company at 6 per cent interest, and has without compensation endorsed the papers of the corporation, and that by investments in its stock, he has depreciated his estate, according to their estimate \$80,000.

As it regards the charges of peculation, or robbery against the directors, the committee do not see the least taint of suspicion.

With reference to Mr. Quincy, the late treasurer, they deem the matter of too much importance to report, until possessed of all the facts.

The committee consider the location of the road through Northfield, and the location of the repair shops at that place as judicious steps.

The committee have examined thoroughly into the condition of the road, and have found the masonry work and bridges substantial; the iron shows some defects; the cross-ties are very much deteriorated and must be soon partially renewed. The station houses are generally well built and commodious, and reasonably cheap. The engines owing to the late fire are not in good order, but this the shops at Northfield will soon remedy; the freight cars are generally in good order.

As to receipts the committee state that from July 1, 1851, to July 1, 1852, they were about \$550,000, and the expenditures about \$334,000. For the months since May, 1852, the increase of receipts has been 45 per cent, and the committee think that the increase for the entire year may be estimated at 25 per cent. This, after deducting all expenses, interest, etc., would leave a small balance.

Mr. Lee concluded with some remarks relative to the expediency of raising the price of freight.

A resolution offered by Mr. Mead, authorising the issue of the second mortgage bonds was passed, also a resolution of thanks to Messrs. Langdon, Putnam and Dunn, late directors.

The following gentlemen were chosen directors, the last four unanimously, and the others nearly so: Charles Paine, C. O. Whitmore, John Smith, Nathl. Thayer, H. H. Hunnewell, Joel W. White, John H. Peck. The number of shares voted on was 76,129.

A letter from Josiah Quincy was received, addressed to the stockholders, in reference to the matter at issue between him and the board of directors.

**Susquehanna Railroad.**

At an election held recently, R. M. Magraw and Michael Herr, Esqrs., were chosen directors of the Baltimore and Susquehanna railroad company, on behalf of the individual stockholders.

**Ohio.**

The Cincinnati and Dayton railroad company are about to prepare their road bed for a second track, and will commence laying the iron in a short time.

**Notice to Contractors.**

**SEALED PROPOSALS** will be received at the Office of the New Orleans, Jackson and Great Northern Railroad Company, in the city of New Orleans, until the 30th of November next, for the grading, masonry, piling and bridging of that part of their road from Lake Maurepas, to the line of the State of Mississippi, a distance of 51 miles.

Also, for the masonry required on the first 36 miles of road from the city of New Orleans to the Lake, at the South Pass Manchac.

The first 9 miles of the section to the State Line, is through the Lake swamp, and includes the piling and bridging (with one draw) of the South and North Passes, the remainder is through a healthy fine country, which, with the contemplated lettings of the remaining 100 miles to Jackson, Mississippi, render this work well worthy the attention of Northern Contractors.

Payments will be made in cash, with 20 per cent retained until the completion and acceptance of the work.

Satisfactory evidence of ability will be required with the proposals.

Plans and profiles will be ready for examination ten days before the letting.

JAMES CLARK, Chief Engineer.

New Orleans, October 16th, 1852.

**SAUGATUCK IRON WORKS**  
WESTPORT, CONN.

**Miller & Williamson,**

PROPRIETORS.

OFFICE, NO. 5 NASSAU ST., NEW YORK.  
**M**ANUFACTURERS of Car Wheels, Axles, Boxes and Pedestals, Locomotive Drivers and Cylinders, Screw Cutters, Drilling Machines, Switch Stands, Levers and Targets, Frogs, Head and Heel Blocks, Chairs, and all Castings connected with the superstructure of Railroads.

**REFER TO**

Morris Ketchum, Esq., Treasurer, { N. Y. and N. H.  
Robert Schuyler, Esq., President, { & Ill. Cent. R.R.  
George L. Schuyler, Esq., President, { Saratoga &  
J. Van Rensselaer, Esq., Eng. & Sup't, { Wash. R.R.  
Gouv. Morris, Esq., of Morrisania, V. Pres' { Harlem  
M. Sloat, Esq., Superintendent, { R. R.  
E. F. Bishop, Esq., President, { Naugatuck R.  
Philo. Hurd, Esq., Superintendent, { Road.  
Wm. P. Burrall, Esq., Vice President, { N. York &  
Geo. W. Whistler, Esq., Eng. & Sup't, { N. H. R.R.  
R. B. Mason, Esq., Engineer Illinois Central R. R.  
James B. Sargent, Esq., Civil Engineer.  
Hon. John S. Brien, Nashville, Tenn.  
A. R. Gilmore, Esq., Super't Rock Island Railroad,  
October 30, 1852. [Chicago, Ill.

**Portland Company's Locomotive Works, Portland, Me.**

**H**AVING made extensive additions to their works, the Company are prepared to receive ORDERS for LOCOMOTIVES and TENDERS; FREIGHT MAIL, EARTH and HAND CARS, RAILWAY FROGS, SWITCHES, and CHAIRS, CHILLED WHEELS, SNOW PLOUGHS, and CASTINGS generally.

**ALSO—**

STATIONARY ENGINES, HIGH and LOW PRESSURE BOILERS, TOOLS for LOCOMOTIVE SHOPS.

The whole warranted to be of the latest improvements and best workmanship.

J. C. CHURCHILL, Treas.  
JOHN SPARROW, Supt.

Portland, Sept. 21, 1852. ff

**CAUTION.**

**R**AILROAD Companies, and the public generally, are hereby cautioned against purchasing Richardson's Patent Oil Cups, or the right to use the same, except of the undersigned, Proprietor of the Patent, or of some one acting under his authority. Communications addressed to him at Westminster, Vt., will be promptly attended to.

E. DEWOLF, Jr.

Oct. 2, 1852. ly\*

**To Contractors.**

**SEALED PROPOSALS** are requested for the Graduation, Masonry and Track-laying of the Albany and Susquehanna Railroad, extending from Albany to Binghamton: distance 140 miles.

The line will be ready for the inspection of Contractors on the 16th November, and proposals will be received until the 30th November.

The work will be divided into sections of about five miles each, and Contractors can include in their proposals as many of these as may suit their convenience.

The Company reserves the right to accept of such proposals as in their judgment will best secure the prompt construction of the road.

All proposals to be sealed and indorsed: "Proposals for the Albany and Susquehanna Railroad," and directed to J. P. Kirkwood, 116 State street, Albany.

The plans and profiles can be seen at the Engineer's Office, 116 State street, Albany, on and after the 16th of November, where further information can be obtained.

E. C. DELAVAN, President.  
JAMES P. KIRKWOOD, Engineer.  
Albany, 116 State Street.

**Cotton Steam Packing.**

**T**HIS Superior Packing is prepared by us expressly for Locomotive Engines. The advantages resulting from its use—cheapness—greater safety, and economy of labor.

Orders addressed to us at 91 Wall st., New York, will have prompt attention.

J. M. HALL & CO.  
P. S.—Waste for cleaning engines, in quantities as wanted.  
July 24, 6m\*

**VOLCANO QUARTZ MINING COMPANY,**

**V**olcanoville, Eldorado County, California.—Books will be opened at the office of the company, No. 78 Broadway, on Saturday the 30th day of October, inst., at 10 o'clock A. M., for Subscriptions to the Stock of this Company, to the amount of seventy-five thousand dollars. This Company has been organized under the statutes of California, with a capital of \$500,000, for the purpose of working the extensive and exceedingly rich mines which have been recently opened at Volcanoville, near the middle fork of the American River; and it is now proposed to sell an amount of stock sufficient to erect machinery of the most approved and powerful description, for the purpose of working them on an improved and profitable scale. The claims of the proprietors of these mines consist of

"three thousand six hundred feet, on the line of the vein, with all its offsets, dips, and angles," together with over two hundred acres of land, well timbered supplying an abundance of fuel and timber for many years to come. The vein has been "prospected" or examined at different points for three quarters of a mile, and at one place to the depth of fifty feet, where it is thirteen feet thick, by a shaft six feet in diameter, and by a drift or tunnel of over one hundred and fifty feet, by which it is drained and ventilated, and at the same time worked by a rail track to the mill, which is within five hundred feet of the vein. The proprietors of the vein, who spent nearly a year in opening and thoroughly testing its extent and character, have erected buildings—one forty by fifty, and one thirty by twenty feet—quite sufficient to contain the machinery for

working on a large scale, only requiring additional buildings for fuel, offices, etc., so that the machinery may be put in operation in a very short time after its arrival on the ground. As to the vein, its extent and exceeding richness are equal, at least, to the celebrated "Carson Creek Vein," upon which a working capital of over \$375,000 has been paid in London, for which the subscribers are to receive forty per cent., and the proprietors of the vein sixty per cent. of the net profits. We will only say that, by a personal examination of the quartz taken from the vein, at different points and various depths, and from free conversation with those who have worked for months upon the enterprise, can be formed a correct estimate of the value and extent of the claims now offered to capitalists and the public. We therefore respectfully solicit those who

may feel an interest in such matters to call at the office, No. 78 Broadway, and examine the samples of quartz and gold taken from the Volcanoville mines, and to converse with Mr. Nathaniel Conkling, who was with D. K. Minor, in the mountains during the past year, and who took from the mines the samples now on exhibition.

Perhaps it may be proper for us to say here that our claims are not, in our opinion, surpassed by those of any other company in California, either in extent or richness, and that with proper machinery they will yield very large returns to those who may invest in the enterprise.

Pamphlets, containing the statute of California in relation to corporations, the rules and regulations of our locality, the charter and by-laws of the Co., together with much other interesting and useful matter, including a map of a portion of the northern mining regions may be had gratis at the office of the company, No. 78 Broadway, or by mail on application, (postage paid.)

Ten per cent of the amount subscribed to be paid at the time of subscription; 20 per cent in 30 days, or on the 29th of November, and the balance, or 70 per cent on the 29th of December next. Shares of \$100 each. Payment to be made in current funds; and subscriptions by mail, addressed to D. K. MINOR, President, No. 78 Broadway, N. York, the same as on personal application.

**TRUSTEES OR DIRECTORS.**

NICHOLAS DEAN,  
ROBERT M. STRATTON,  
NATHANIEL CONKLING,  
D. K. MINOR,  
JOB S. HEARN,  
SUMNER WHITNEY,  
BENJAMIN C. DONNELLAN,  
JAMES CLOWDSLEY  
JAMES ALLEN,

of New York.

of California.

D. K. MINOR, President,  
JAMES CLOWDSLEY, Vice President.

NICHOLAS DEAN, Treasurer.  
NATHANIEL CONKLING, Secretary.

New York, Oct. 25, 1852.

**Griffith's Patent Double Machine for making Wrought Iron Railroad Chairs.**

**T**HE undersigned, in calling the attention of the public to the superiority of his Patented Machine for making Wrought Iron Chairs, desires to point out the following advantages which it possesses over all others:

First. It adds to the lips of the chair very considerable strength, which cannot be obtained by any other machine with the same size of plate; and it renders the chair perfect without the aid of a hammer to fit the cross tie, so that it can be firmly united with a rail of any required size now in use.

Secondly. These machines are got up cheap and strong, and are so constructed as to make two sorts or sizes of chairs at the same time, with the same amount of labor as though working a single machine; so that, double the amount of labor is obtained with the same number of hands, besides the saving of coal in the furnace. These facts demonstrate the great advantage and superiority of my Patent Double Machine over all others yet invented.

All letters, and orders for machines, patent rights, etc., will meet with immediate attention.

Please address ROBERT GRIFFITH,  
1m39  
Newport, Kentucky.

**Hoole, Staniforth & Co.,****MINERVA WORKS,**

SheffIELD,  
Manufacturers of Improved Cast Steel Engineering and Machine Files;  
Locomotive Engine, Railway Carriage and Wagon Springs.

Saws of every description, Engineers' Hammers, etc., etc., etc.

An assortment of Steel from the above Works constantly on hand by RICHARD MAKIN,  
Agent for the Manufacturers,  
43tf 65 Broad street.

**Huger, T. P.,**  
Northeastern Railroad, Charleston, S. C.

STATE OF NEW YORK.—SECRETARY'S OFFICE, ALBANY, August 14, 1852.

To the Sheriff of the City and County of New York:

Sir—Notice is hereby given that at the next General Election to be held in this State on the Tuesday succeeding the first Monday of November next, the following officers are to be elected, to wit:

A Governor in the place of Washington Hunt; A Lieutenant Governor in the place of Sanford E. Church;

A Canal Commissioner in the place of Frederick Follett; and

An Inspector of State Prisons in the place of Darius Clark;

All whose terms of office will expire on the 1st day of December next.

Thirty-five electors of President and Vice President of the United States;

A Representative in the Thirty-third Congress of the United States, for the Third Congressional District, composed of the First, Second, Third, Fifth and Eighth Wards;

Also, a Representative in the said Congress, for the Fourth Congressional District, composed of the Fourth, Sixth, Tenth and Fourteenth Wards of said City and County;

Also, a Representative in said Congress for the Fifth Congressional District, composed of the Seventh and Thirteenth Wards of said City and County, and the City of Williamsburgh, in the County of Kings;

Also, a Representative in said Congress, for the Sixth Congressional District, composed of the Eleventh, Fifteenth and Seventeenth Wards of the said City and County of New York;

Also, a Representative in the said Congress for the Seventh Congressional District, composed of the Ninth, Sixteenth and Twentieth Wards of the said City and County; and

Also, a Representative in the said Congress, for the Eighth Congressional District, composed of the Twelfth, Eighteenth, and Nineteenth Wards of said City and County of New York.

CITY AND COUNTY OFFICERS ALSO TO BE ELECTED,

Sixteen Members of the Assembly;

A Mayor of the City, in the place of Ambrose C. Kingsland;

A Sheriff, in the place of Thomas Carnley;

A County Clerk, in the place of George W. Riblet;

A Comptroller, in the place of Joseph R. Taylor;

A City Inspector, in place of Alfred W. White;

A Commissioner of Repairs and Supplies, in the place of William Adams;

A Street Commissioner, in the place of John T. Dodge;

A Corporation Counsel, in the place of Henry E. Davies;

Four Coroners, in the place of John Ives, pursuant to chap. 289, Laws of 1852;

Three Justices of the Marine Court, pursuant to chap. 289, of the Laws of 1852, in the place of James Lynch and Edward E. Cowles;

Two Governors of the Alms House, in the place of William M. Evarts and Jonathan I. Coddington;

All of whose terms of office will expire on the last day of December next.

Also, an additional Justice of the Supreme Court for the First Circuit, pursuant to chap. 374 of the Laws of 1852, and

Also, a Justice of the Superior Court in the place of Lewis H. Sanford, deceased.

Yours respectfully,

HENRY S. RANDALL,  
Secretary of State.

N. B.—You are without delay, to deliver a copy of the above notice to the Supervisor or one of the Assessors of each town or ward in your county; and also to cause a copy of said notice to be published in all the public newspapers printed in your county, once in each week until the election. If there be no newspaper printed in your county, then the publication is to be made in some one of an adjoining county.

Mills, John B., Civil Engineer,  
Address to care of Wm. Churchill, Jr., New York.

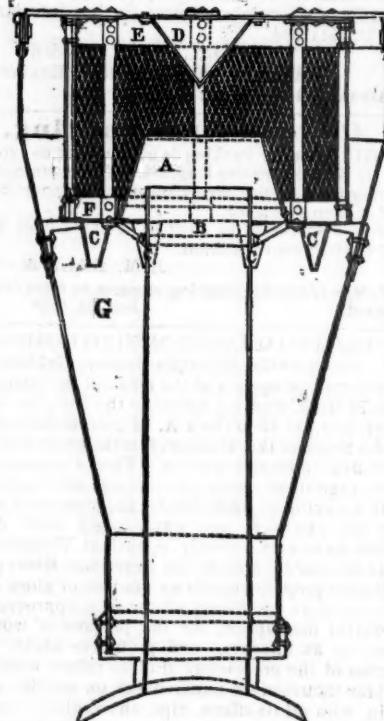
IRON.

200 Tons Fishkill Charcoal Iron for sale on reasonable terms, also from 1000 to 5000 tons Fishkill Hematite Ore—delivered at Poughkeepsie or New York. Samples of the ore may be seen at the store of Messrs. Hoffman, Bailey & Co., No. 62 Water st., New York. Enquire by letter to NORMAN M. FINLAY,  
Poughkeepsie, Dutchess county, N. Y.  
July 10, 1851.

I. DENNIS, JR.,  
WASHINGTON, D. C.,

ATTORNEY for Inventors, and Agent for Prosecuting Patents—Practical Machinist, Manufacturer and Draughtsman, of 20 years' experience. Circulars containing important information, with a map of Washington, sent to those who forward their address, and enclose a stamp. 311f

Matthew's Patent  
SPARK ARRESTER.



THE Patentee of the above named Spark Arrester invites the attention of Railroad Directors and Officers of Railroads, who have no other interest than the comfort and safety of passengers, and the economy of their company, to test them and judge for themselves. To all such persons, the Patentee will furnish his Patent Spark Arrester free of charge, by such parties sending the necessary dimensions. And the price will be, for the Spark Arrester and Chimney, with patent right to use and repair the same, all ready to place on the Locomotive, \$130—if approved; if not approved, and returned, no charge made. He warrants them superior to any in use, in all points, lighter, cheaper, more durable, safer, cleaner, saving from 15 to 20 per cent in fuel.

The necessary dimensions to be furnished, are: 1st. The radius of the smoke box, on which the pipe sets. 2d. The height from smoke box to top of pipe. 3d. The diameter of cylinder and length of stroke. 4th. Whether a cut-off is used or not.

DAVID MATTHEW,  
Penn st., (one door north of Almond st.,)  
Philadelphia, Pa.

TESTIMONIALS.  
Office of the Syracuse and Utica R.R. Co.,  
Syracuse, August 18, 1842.

This company have several "Patent Spark Arresters and Chimneys" upon their locomotive en-

gines, which were furnished by David Matthew, constructed according to the specification attached to his patent.

They are by far the best smoke pipe and spark arrester that we have tried or seen.

No inconvenience from sparks or cinders is suffered by the passengers; nor is the draft impeded.

We consider them a great improvement, and regard them as almost indispensable in our business. JOHN WILKINSON, President.

Office of the Auburn and Rochester R.R. Co.,  
Canandaigua August 26, 1842.

This may certify, that there has been in use on the Auburn and Rochester railroad, for the last two years, eight of Matthew's "Patent Spark Arresters," which have given the most perfect satisfaction. From the use of the Arresters on this road, and what I have seen of them elsewhere, I have no doubt but that they are the best in use in the country.

R. HIGHAM,  
Supt. and Engineer A. & R. R. R.  
To DAVID MATTHEW, Machinist.

Auburn and Syracuse R. R. Office,  
August 29, 1842.

Dear Sir—The three Spark arresters of your patent, which we have in use on our road, have given perfect satisfaction, and we consider them superior to any now in use, combining as they do the power of arresting the sparks and cinders, without affecting the draft of the engine. Respectfully yours,

E. P. WILLIAMS, Superintendent.  
M. W. MASON, Supt. of Machinery.  
To DAVID MATTHEW, Esq.

Rochester, August 1842.

We, the undersigned, have used D. Matthew's Patent Spark Arresters and Chimney on the locomotive engines used on the Auburn and Rochester railroad, of different manufacturers, viz: Rogers, Ketchum & Grosvenor, Norris, and Eastwick & Harrison, for more than one year; and all the engines using these Spark Arresters and Chimney have made steam as free as with any other pipe we have ever used; and we believe the draft is as good as any other pipe of the same dimensions, and prevents the escape of sparks and cinders. There has not been any expense for repair on the Spark Arrester or Chimney since they have been put on the locomotive engines; and we further think that they will last for years with little or no repairs.

THOS. SNOOK, Supt. M. P.  
CHARLES W. HIGHAM,  
N. C. MARTIN,  
WM. HART,  
Locomotive Engineers.

Syracuse, August 21, 1842.

We, the undersigned, locomotive engineers on the Syracuse and Utica railroad, have used during the last two years, David Matthew's "Patent Spark Arresters and Chimneys," and on our engines we have been able to generate steam as freely as with any other pipe we have ever used. The draft is as strong and free as that of an open pipe of the same diameter, and most effectually prevents the escape of fire and cinders. There have, as yet, been no repairs required to any of these pipes, and we believe they may be used for years with but trifling expense to keep them in perfect order. We certainly consider this pipe a great improvement over any other with which we have been acquainted.

DAVID BEGGS, Supt. M. P.  
PETER GRANT,  
WILLIAM McGIBBON,  
WILLIAM CESSFORD,  
JAMES BONNER,  
JOHN VEDDER, Jr.,  
Locomotive Engineers.

Syracuse, April 4, 1847.

Mr. DAVID MATTHEW:

Dear Sir—Your letter came duly to hand, in relation to the Spark Arresters. Those which we use are all of your patent; and on the neighboring roads we got others to try, but they were not good, and we had to substitute yours.

I am, dear sir, yours respectfully,  
DAVID BEGGS,  
E. M. P. Sy. and Utica Railroad.

Utica and Schenectady Railroad Office,  
May 5, 1847.

Mr. DAVID MATTHEW:

Sir:—In regard to the "Spark Arrester," several kinds have been tried; but yours, as you left it, has been constantly in use. We have your patent on fifteen engines, and use no other kind. Nothing tried here has been so acceptable to us.

Respectfully your ob't serv't,  
WM. C. YOUNG,  
Supt. and Eng. U. & S. R. Co.

Locomotive Works, Philadelphia,  
February 2, 1850.

Mr. DAVID MATTHEW, Vulcan Works, Baltimore:

Dear Sir:—Your letter of 30th ultimo reached us only this morning, and in reply we would state, that we have not had much opportunity of judging of the merits of your Pipe in comparison with others, but that on the Utica and Schenectady Railroad, where we have a number of our engines running, your Pipe is exclusively used, and preferred to all others.

Yours, very truly,  
NORRIS, BROTHERS.

Patterson, N. J., Feb. 6, 1850.

Mr. DAVID MATTHEW, Baltimore:

Dear Sir:—Your favor of the 31st January is received. When we used your Spark Arresters on our locomotives they gave entire satisfaction, and we should have continued to use them if we could have procured them; but the gentleman at Catskill, who, we understood, had made arrangements with you respecting the sale of the right to use them, refused to furnish them, except there was an agreement made for selling the right to the whole road. This we could not do, which compelled us to procure our Spark Arresters elsewhere.

We have often been applied to for your Spark Arresters; but as we could not procure them, we have been obliged to furnish others.

Your Spark Arresters have been highly spoken of by all those that we know who have used them, and we think they are equal to any in use.

Very respectfully,

ROGERS, KETCHUM & GROSVENOR.

Per S. J. ROGERS.

Utica and Schenectady Railroad Office,  
Schenectady, Feb. 19, 1850.

DAVID MATTHEW:

Dear Sir—I received yours of January 25th, in reply to smoke-pipes, we consider the Spark Arrestor of yours, used by us, far superior to any in use.

Respectfully, your obedient servant,  
C. VIBBARD, Sup't U. & S. Railroad.

Mr. DAVID MATTHEW—

Dear Sir:—In reply to your enquiries I have to state, that I have been engaged in the manufacture of your "Spark Arrester and Smoke-Pipe for steam engines," for over ten years last past.

I have no hesitation in saying, that your "Spark Arrester" is the best that has ever been in use in this country. I have seen all others, or nearly all others tried, but your invention, as patented 31st December, 1840, possesses all the requisites for railroad and other uses in a degree decidedly superior to them all. I am now employed as an engine builder in the establishment of the Hudson River Railroad, and after a careful trial of all the spark arresters and pipes most esteemed in this country, we have found yours to be decidedly the best, and, in this opinion I am supported by the chief superintendent of motive power of that road, who has so expressed himself to me.

I am, very respectfully, your ob't serv't,  
JOHN TAYLOR.

DAVID MATTHEW, Esq.:

Dear Sir—Your "Patent Spark Arrester," has been in use on our Locomotives since 1840, during which time we have tried several of a different construction. We can recommend yours as being the most effective and economical of any used by us. Little or no inconvenience from sparks is suffered by passengers; nor is the draft obstructed. From the best estimate we can make they can be kept in repair for about ten dollars each per year.

C. VIBBARD, Superintendent.  
V. BLACKBURN, Mast. Ma.

Office of the Syracuse and Utica R. R. Co.,  
Syracuse, August 7, 1851.

My Dear Sir:—I am glad that you obtained your right of building Spark-Arresters, and most certainly it is the best in use, and generally approved of. I think they are using them pretty generally on the Hudson River R. R., and all the other patents which have been made since the date of yours, are copies in some degree, from yours. Anything that I can do to forward your interests in this matter will be done with cheerfulness. I think of going to Philadelphia this summer, and shall call on you.

Yours, very truly, D. BEGGS.

Utica and Schenectady Railroad Office,  
Schenectady, August 30th, 1851.

This is to certify that Mr. David Matthew's Spark Arresters have been used on a number of the locomotives constructed by the Newcastle Manufacturing Company. They have, in all cases, given entire satisfaction. With them the exhaust pipes can always be made sufficiently large to ensure a full discharge of steam; while at the same time, they afford the necessary draught, and completely stop the sparks. I cheerfully recommend them to the attention of railroad companies and manufacturers of locomotive engines.

ANDREW C. GRAY,  
Pres't Newcastle Manufacturing Co.

Albany, September 8th, 1851.

Gen. W. SWIFT:

Dear Sir—This will serve to introduce to your favorable notice Mr. David Matthew, who is the inventor, and holds the patent for a Spark Arrester, which has been used by many of our railroads on their locomotives. I consider it a valuable improvement, and do not doubt but Railroad Companies will generally use it. Yours respectfully,

ERASTUS CORNING.

Office Hudson River Railroad,  
New York, February 14, 1852.

D. MATTHEW, Esq.:

Dear Sir—I am so little acquainted with the merits of different kinds of Spark Arresters, that I do not feel competent to give an opinion for publication. I know that your Arrester is a good one, and has been highly esteemed on the roads where I have been employed. But I have not sufficient practical knowledge of the subject, to venture any comparison of its merits with other kinds of arresters.

Yours truly, O. H. LEE, H. R. R.

Office of the Hudson River R. R.,  
31st st., New York, May 16, 1852.

Mr. DAVID MATTHEW:

Dear Sir—I have been acquainted with your Spark Arrester since its introduction, and have carefully watched its operation in comparison with many others. I have no hesitation in saying, that as a Spark Arrester without diminution of draft, it has no equal in use. I have been able to use a much larger exhaust pipe than with other pipe, and, from experiments recently made, I am satisfied that the Cap, or Spark Arrester, is no impediment to the draft of the open chimney. Very respectfully,

HENRY WATERMAN,  
Superintendent of Motive Power.

I have this day purchased the right to use the above pipes on the Saratoga and Washington railroad, and concur in all that Mr. Sargent has said of them.

J. VAN RENSSELAER,  
Superintendent S. & W. R. R.  
Saratoga Springs, May 22d, 1852.

Albany and Schenectady Railroad, Albany.

Having used Mr. Matthew's Spark Arrester on our engines, and considering it a valuable invention, we have purchased the right to use it on our road.

E. C. M'INTOSH, President.

Schenectady and Troy R. R. Office,  
Troy, July 20th, 1852.

I have this day purchased the right to use Mr. Matthew's Spark Arrester on this road; I have been acquainted with this Spark Arrester for ten years, and consider it the best that has come under my notice.

EDWARD MARTIN,  
Superintendent S. and T. R. R.

Office Rensselaer and Saratoga Railroad,

Troy, May 23d, 1852.

This may certify that I consider the Patent Locomotive Smoke Pipes and Spark Arrester of D. Matthew's as more economical and safe than any now in use. It is more durable, and throws less fire and cinders, without impairing the draft, they have been in constant use upon the different roads under my charge since 1841, as have all the other various kinds now used, and after this long experience and careful observation, I am entirely satisfied that those invented by Mr. Matthew are decidedly the best, and I have secured the right to use the same by this company, and the Saratoga and Schenectady railroad company, by purchase made yesterday.

L. R. SARGENT, Superintendent.

I have this day purchased of Mr. Matthew the right to use his Spark Arresters on the Syracuse and Utica railroad. I believe it is the best pipe there is.

JOHN WILKINSON,

President S. & U. R. R.

Syracuse, July 16, 1852.

I have this day purchased of Mr. David Matthew the right to use his Patent Spark Arrester on the Rochester and Syracuse railroad, during its present term, and renewal or extension, believing it to be the best Arrester now in use.

CHARLES DUTTON, Supt.

Superintendent's Office

Buffalo and Rochester Railroad Co.,

Buffalo, July 23, 1852.

David Matthew, Esq., has this day conveyed to this company the right to use his Spark Arrester, patented in 1840. It has been in use on this road for some years past, and gives better satisfaction than any other improvement claiming the name of Spark Arrester.

HENRY MARTIN,

Superintendent, J. W.

REFERENCE is made to the following Gentlemen and Companies, with whom Agencies have been established for the sale of the Spark Arrester, and rights under the Patent:

Erastus Corning, Esq., Albany, N. Y.; Messrs Rogers, Ketchum and Grosvenor, 74 Broadway: New York city, and at their Works in Patterson, N. J.; The New Jersey Locomotive Machine Company, at Patterson N. J., James Jackson, President,—address also at Patterson, Messrs William Swinburne & Co., Locomotive Builders, Patterson, N. J.; Messrs. Norris, Brothers, Philadelphia, Pa.; M. W. Baldwin, Esq. do; A. C. Gray, Esq., Newcastle Manufacturing Company, Newcastle Delaware; the Schenectady Locomotive Iron Works, Schenectady, N. York; The Boston Locomotive Works, Boston, Mass.; The Taunton Locomotive Manufacturing Company, Taunton, Mass.; Wm. Cundie Patterson, N. J.; Cline & Brothers Schenectady; Peter Smith, Albany, N. York; Thomas Snook, Rochester, N. Y.; Nashville Manufacturing Company, Nashville, Tenn.; Niles & Co Cincinnati, Ohio; Cuyahoga Works, Ohio City.

All applications for the use of the above Patent Rights, etc. for the New England States, and New York, East of the Hudson River, to be made to H. VAN KURAN, Boston Locomotive Works, Mass., or to D. MATTHEW, Patenttee, Philadelphia, Pa.

NOTICE.—Railroad Companies getting new engines, can have Matthew's Patent Spark Arrester placed on them, by applying to the manufacturers, so that the apparatus costs them nothing but the patent right. This they will find of great advantage to them.

D. M.

## To Railroad Co's, Locomotive Builders and Engineers.

THE undersigned having taken the Agency of Ashcroft's Steam Gauge, would recommend their adoption by those interested. They have been extensively used on Railroads, Steamers and Stationary Boilers, where, from their accuracy, simplicity, and non-liability to derangement, they have given perfect satisfaction. In fact, for Locomotives, they are the only reliable Gauge yet introduced.

CHAS. W. COPELAND,

Consulting Engineer, 64 Broadway.

Aug. 28, 1852.—64.

**"Leonard's" Patent Double Plate Car Wheel. Solid Hub.**

THE form of this Wheel is such that the metal is not strained in casting, hence the manufacturer will warrant them in any service Car Wheels are submitted to.

Sold in any quantity, and shipped to any part of the country or Canadas, by the subscriber, Manufacturer's and Patentee's sole Agent 53 Killy St., Liberty Square, Boston.

WM. S. SAMPSON.

August 21, 1852.

**LOW MOOR AXLES.**  
A SUPERIOR Article for Railroad Cars, supplied by the Manufacturers' Agent WM. BAILEY LANG, 9 Liberty Square, Boston.

**UNION WORKS,**  
North street, opposite the Railroad Depot,  
BALTIMORE.

**Poole & Hunt,**

Manufacturers of Steam Engines and Mill Gearing, Machinists' Tools, and all kinds of heavy and light Machinery.

Also put up Arrangements of Wrought Iron Pipes for heating buildings and conveying steam or water.

Casting of every kind furnished at short notice.

Every exertion will be made to insure the satisfaction of customers.

**Railroad Spikes.**

WE would call the attention of Railroad Companies and Contractors to a superior article of Railroad Spikes, of our own manufacture, which for finish, durability and quality of Iron, are not equalled by any in the United States.

THACHER & SEARS,  
79 State st., Boston.

N.B.—T. & S. are prepared to take contracts for the delivery of Spikes, at any port of the U. States.

**Elmira Car Shop.**

THE Undersigned is prepared to manufacture for Railroad Companies, Passenger, Baggage, Cattle, Freight, Gravel and Hand Cars, also Baggage Cars and Freight Trucks. WM. E. RUTTER.

Elmira, N. Y., Aug. 14, 1852.

**LOW MOOR IRON.**

WM. BAILEY LANG, 9 Liberty Square, Boston, Sole Agent in the United States and Canadas for the Low Moor Iron Co., is prepared to receive orders for this justly celebrated Iron, and offers for sale an assortment of the Round sizes, which are now in store, and which for strength, soundness and uniform quality, stands without a rival.

**Railroad and Mathematical Instruments.**

KUNS & BASELER, Mathematical Instrument makers, manufacture and keep for sale all kinds of mathematical instruments: also drawing instruments, scales and balances for the use of chemists, professional gentlemen, jewellers, etc., etc., of the most perfect description, at the lowest price, at 81 Nassau street, New York.

**Babcock & Fennell,**  
NEW ORLEANS,

GIVE their personal attention to forwarding Railroad Iron, Machinery, etc.

Refer to—

DAVIS, BROOKS & CO., New York.  
CHARLES T. GILBERT,

**To the Owners of Furnaces, Forges and Rolling Mills, ENGAGED IN THE MANUFACTURE OF IRON IN NEW JERSEY AND ADJOINING STATES.**

THE Subscriber proposes to sell, or lease for a term of years, his well known Iron Mine, at Suckasunny, in Morris County, State of New Jersey, situated nine miles from Morristown, and three from Dover.

Offers to purchase or lease the same will be thankfully received at the mine, till the first day of December next, by the subscriber.

MAHLON DICKERSON,  
Suckasunny, N. J.

September 9, 1852.

2m

**Fulton Iron Works and Car Factory.**

W. W. WETHERELL, Proprietor.

ELIJAH PACKARD, Superintendent.

SANDUSKY, OHIO.

THE PROPRIETOR of the above named extensive works, takes pleasure in informing his friends and the public generally, that he has fortunately secured the services of MR. E. PACKARD, now of Worcester, Mass., late one of the firm of THRESHER, PACKARD & CO., of Dayton, Ohio. The skill and competency of Mr. P. are matters with which Western Railroad men are too familiar to need any comment, and will be understood by customers as an important guaranty of the best and latest style of Railroad Work.

The Proprietor has made provision for enlarging his already extensive Works, and expects to be able to meet every demand in his line of business. He will furnish, upon short notice, First and Second Class PASSENGER CARS, BAGGAGE, FREIGHT, GRAVEL and all other kinds of Cars now in use, of the best quality and at the lowest prices. He will also furnish, upon like notice and at the cheapest rates, CAR WHEELS and all other kinds of Railroad Castings.

He has secured the right of WASHBURN'S CAR WHEEL, together with several other Patterns of the most approved styles.

No expense or trouble has been spared in his preparations to meet the demand of the public in his line of business, and he hopes for a liberal patronage.

W. W. WETHERELL.

August 2, 1852.

1y40

**\$250.000****San Francisco Water Loan.**

Ten per cent. Bonds of \$1,000 each, with Coupons, payable semi-annually, in the City of New York, redeemable on 1st November, 1862.

THE UNDERSIGNED, PRESIDENT OF THE Mountain Lake Water Company, of the City of San Francisco, in the State of California, will receive sealed proposals at the office of Messrs. Dias & Thomas, No. 52 Wall street, in the city of New York, until Thursday, the 4th day of November, 1852, at 2 o'clock P. M., for the whole, or any part of the above mentioned Loan, which will bear an interest at the rate of ten per cent. per annum, payable semi-annually in the City of New York, and be redeemable on the 1st day of November, 1862, in the city of New York.

The undersigned will avail himself of the usual privilege of rejecting conditional bids, and of declining such as he may deem not advantageous.

Bids should be directed "Proposals for San Francisco Water Bonds," and sent to the subscriber.

Twenty per cent. and the premium will be payable on the day after opening the bids, and the balance with accrued interest may be paid at the option of the bidder any time before the first day of February next, thus giving Capitalists an opportunity to secure a most reliable and permanent investment, without precipitately disturbing their financial arrangements.

The debt created by the issue of these Bonds, is for the purpose of paying for the necessary pipes, and fixtures, more than sufficient means being already provided for the purpose of building the dams, reservoirs, laying the pipes, and completing the works; the entire capital of the Company (\$500,000,) having been subscribed by the citizens of San Francisco; the subscribers embracing many of its most wealthy and respectable Merchants and Bankers. This is the first and only debt of the Company, and the repayment of the same is secured, by the Transfer in Trust, to James B. Bond and William M. Burgoine, of all the property and franchises of the Company, valued at upwards of One Million of Dollars.

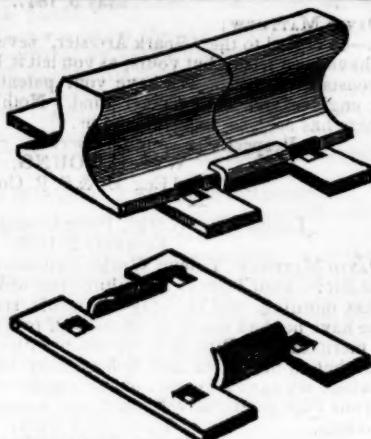
The Company have by law the exclusive right of laying pipes within the city limits, and own by purchase the only source from which water can be introduced into the city.

The Stock of this Company will probably be the best paying stock in the Union.

Copies of the Laws, Reports of Engineers, etc., can be had by calling at the office of Messrs. Dias & Thomas, No. 52 Wall street, second story.

SAMUEL PURDY, President.

New York, October 2, 1852.

**Wrought Iron Railroad Chairs at Dayton, O.**

THE Subscriber, being engaged in the manufacture of Wrought Iron Railroad Chairs at Dayton, is prepared to fill orders on the shortest notice for any size and any quantity of chairs that may be desired. Having made arrangement for an unlimited supply of iron, and having in use the best chair making machinery now used, I feel confident that I can compete with any of the older establishments.

W. H. CLARK.

## REFERENCES:

John Swasey & Co., Merchants, Cincinnati.  
E. F. Drake, Pres't D. X. & B. Railroad, Xenia.  
A. Degrave, Railroad Contractor,  
H. S. Brown, Pres't D. & W. R. R., Dayton.  
Beckel & Co., Farmers' Bank.  
October 8, 1852.

**A. Whitney & Son,**  
PHILADELPHIA, PA.

MANUFACTURERS of Chilled Railroad Wheels for Cars and Locomotives. Also furnish Wheels fitted complete on best English and American Rolled and American Hammered Axles.

31t

**Gerard Ralston,**

21 TOKEN HOUSE YARD, LONDON,  
OFFERS HIS SERVICES FOR THE PURCHASE AND SALE OF AMERICAN SECURITIES, COLLECTION OF DIVIDENDS, DEBTS, LEGACIES, ETC., And for the Purchase and Inspection of Railroad Iron, Chairs, or any kind of Machinery.

## REFERENCES:

Messrs Palmer, McKillop, Dent & Co., London.  
" George Peabody & Co., London.  
" Curtis, Bouve & Co., Boston.  
Richard Irvin, Esq., New York.  
Robert Ralston, Esq., Philadelphia.  
C. C. Jamieson, Esq., Baltimore.

39

**PROSSER'S PATENT LAP-WELDED Wrought Iron Boiler Tubes,**  
ALSO,

Their PATENTED TUBES FOR EXTERNAL PRESSURE, made with a free joint either of Iron or Brass.

Every article necessary to drill the Tube-Plates, and to set the Tubes in a proper manner, and to keep them in good condition.

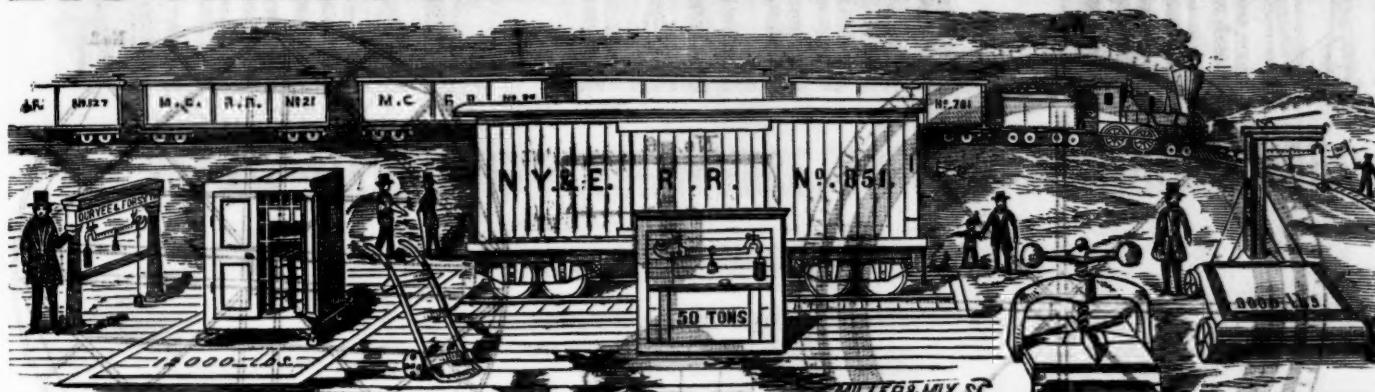
**CORE BARS FOR FOUNDRY USE.**  
Iron Tubes for Artesian Wells, screwed together flush on either side.THOMAS PROSSER & SON, Patentees,  
28 Platt street, New York.**Oxford Furnace, N. J.**

ESTABLISHED A. D. 1743.

THE Subscriber manufactures and keeps constantly on hand for sale, every variety and size of Railroad Wheels, made from the celebrated Oxford Iron. All orders addressed to CHAS. SCRANTON, Oxford Furnace P. O., will be attended to promptly.

Sept. 11, 1852. ly\*

## ROCHESTER SCALE WORKS.

DEPOT SCALE, 6 TONS,  
AND FIRE KING SAFE.TRACK SCALE,  
100,000 LBS.RAILROAD IRON SCALE,  
MANIFEST PRESS, 1 1/2 TONE.

DURYEE &amp; FORSYTH, MANUFACTURERS, ROCHESTER, N. Y.

THE Subscribers are prepared to furnish upon order, RAILROAD SCALES of superior quality at reduced rates; Warehouse Trucks; Manifest Presses and Books; also, COVERT'S FIRE KING SAFE.

It has been decided by Scientific Gentlemen, that our Scales are preferable to all others, from the fact of their being made stronger and more substantial, more material used in the construction of the Levers, which renders them much safer and more durable.

Our MOTTTO is, to excel in the articles we manufacture; therefore the best materials are used. The best model and plans are adopted, to make them the most desirable for the market.

We wish it distinctly understood, that we use the best CAST STEEL in the bearing edges of our Scales, although it has been otherwise reported by Messrs. Fairbanks' Agents. We are ready at all times to test the merits of our Scales with any honorable competitor.

A large majority of the Track, Depot and Portable Scales in use by the New York and Erie Railroad Co. were furnished by us. Also, the Michigan Central Railroad is furnished exclusively with our Scales.

The facilities that we have for manufacturing with new and improved machinery, and the central position we occupy for shipping to the different markets, enables us to reduce the price of our Scales 10 to 15 per cent from former prices.

Our Mr. Duryee has had over twenty-one years practical experience in manufacturing. The work being under his charge furnishes a sure guaranty of the superiority of our wares. All orders will receive prompt attention.

DURYEE &amp; FORSYTH.

## GENERAL DEPOTS:

Wm. T. Pinkney, Jr., Agent, 165 Pearl st., N.Y.  
Raymond, Ward & Co., Chicago, Ill.  
Crawford & Reynolds, Cleveland, Ohio.  
Joseph E. Elder, St. Louis, Mo.  
Byram, Midier & Shreve, Louisville, Ky.

The following Railroads have been furnished with our Scales and Wares, exclusively or nearly so:  
New York and Erie, Cleveland and Columbus, Michigan Central, Michigan and Lake Erie, Mad River and Lake Erie, Paterson and Hudson R., Cincinnati, Hamilton and Dayton, Cincinnati, Dayton, Buffalo and Rochester, Rochester and Syracuse, Louisville and Frankfort, Chicago and Galena, Hillsboro' and Cincinnati, Greenville and Miami, Cayuga and Susquehanna, Rome and Utica, Illinois Coal Company, Rutland and Washington, Buffalo and State Line, Erie and State Line, Cleveland and Pittsburgh, Rochester, Lockport and Michigan Southern, Niagara Falls, American Express Co., The Hon. Canal Commissioners, and Engineers of the Erie Canal Enlargement.

Michigan Central R. R. Office,  
Detroit, May 10th, 1852.

Messrs. DURYEE & FORSYTH,  
Rochester, N. Y.

Gentlemen: We have in use upon our road nearly 6 hundred of your Scales, comprising most of the

sizes ordinarily in use upon railroads, many of which have been in service four or five years.

They have kept in adjustment well, retain their sensitiveness, and we regard them as strong, accurate, reliable, and in every respect satisfactory.

Respectfully yours,  
J. W. BROOKS, Supt.

New York and Erie Railroad,  
Supt's Department Gen'l Freight Office,  
New York, June 21st, 1852.

To MESSRS. DURYEE & FORSYTH,  
Rochester,

Gents: This company have had in use on their road for three years past about fifty of your Railroad Track, Depot and Portable Scales. It affords me much pleasure to assure you that I consider them fully equal to any scale in use on the road, in point of strength, durability, accuracy and finish.

I am very respectfully, your ob't serv't,  
SAM. BROWN, Gen'l Freight Ag't.

The following Report was made by the Hon. Canal Commissioners of the Erie Canal Enlargement, to the Legislature of the State of New York, Feb. 3d, 1852.

## WEIGH LOCK SCALE.

It is but justice to say that the new Weigh Lock at Rochester abundantly sustains the reputation claimed for it by its worthy and scientific builders.

Messrs. Duryee & Forsyth have constructed for this lock, scales of superior power, and may well challenge comparison with any similar work in or out of the State. The mode of adjustment is so easy and simple, that great certainty is secured in determining large or small weights.

Report on Duryee & Forsyth's Weigh Lock Scale, by the Committee of the State Agricultural Society.

The Committee appointed to examine the Weigh Lock Scale in the City of Rochester, manufactured by Messrs. Duryee & Forsyth, of said city, have performed the duty assigned them, and report that they regard it as an admirable piece of mechanism, which reflects great credit on the builders. Length of Scale, 80 feet; width, 20 ft.; height, 32 ft.; weight of scale, 75 tons; capacity of weighing 400 tons.

Considering the weight and strength of the materials used, the delicacy and accuracy of this apparatus for weighing loaded canal boats of the largest class, this scale excites universal admiration. One of the committee tested it when under the pressure of a weight of 219 tons 900 lbs., and it clearly indicated a small additional weight within five pounds.

Any description of this Scale would hardly be intelligible without drawings, which the committee have not at command. It has no equal known to the committee. They recommend that a GOLD MEDAL be awarded to DURYEE & FORSYTH, for the manufacture of an article so important to the protection of the revenue of the Erie canal, and to the accurate weighing of an incalculable amount of private property.

C. DEWEY,  
DANIEL LEE.

Rochester Sept. 20th, 1851.

We have received the Society's FIRST PREMIUMS, DIPLOMAS AND SILVER MEDALS, annually, since 1848, for the best Scales and exhibition. We have also received the DIPLOMAS and

SILVER MEDAL of the American Institute, New York, and DIPLOMA of the Mechanics' Fair in Boston. Also, the HIGHEST PREMIUMS IN MONEY and DIPLOMAS at the Provincial Fairs, Canada, and State Fairs in Ohio and Michigan.

\$200,000 SEVEN PER CENT. CONVERTIBLE BONDS OF the NEWCASTLE and RICHMOND RAILROAD.—The undersigned offer for sale TWO HUNDRED SEVEN PER CENT CONVERTIBLE BONDS for \$1,000 each, of the NEWCASTLE and RICHMOND RAILROAD COMPANY, with Interest Coupons attached, payable semi-annually at the office of the Ohio Life Insurance and Trust Company, in New York. The Bonds are payable at the same place in fifteen years and are convertible into the stock of the company within five years.

These Bonds are secured by a mortgage executed by the Company to George Carlisle, of Cincinnati, and Joseph B. Varnum of New York, Trustees of the road from Richmond in Wayne County, to New-Castle in Henry County, including the superstructure, iron rails, depots, tolls, privileges and franchises of the Company. This mortgage is the FIRST AND ONLY LIEN upon this section of the Road, which is a part of the great Trunk Railroad from Cincinnati to Chicago.

The New-Castle and Richmond Railroad extends from Richmond to Logansport, 103 miles, the whole of which is under contract, and about one thousand hands are now employed on the road.

The total amount of stock subscribed upon the whole road is \$509,400. The stock applicable to the construction of the road from Richmond to New Castle is \$250,900.

This railroad passes through the most fertile, populous and highly improved part of Ohio and Indiana, and it must become the great route for freight and travel between Cincinnati and Chicago and the Northwest.

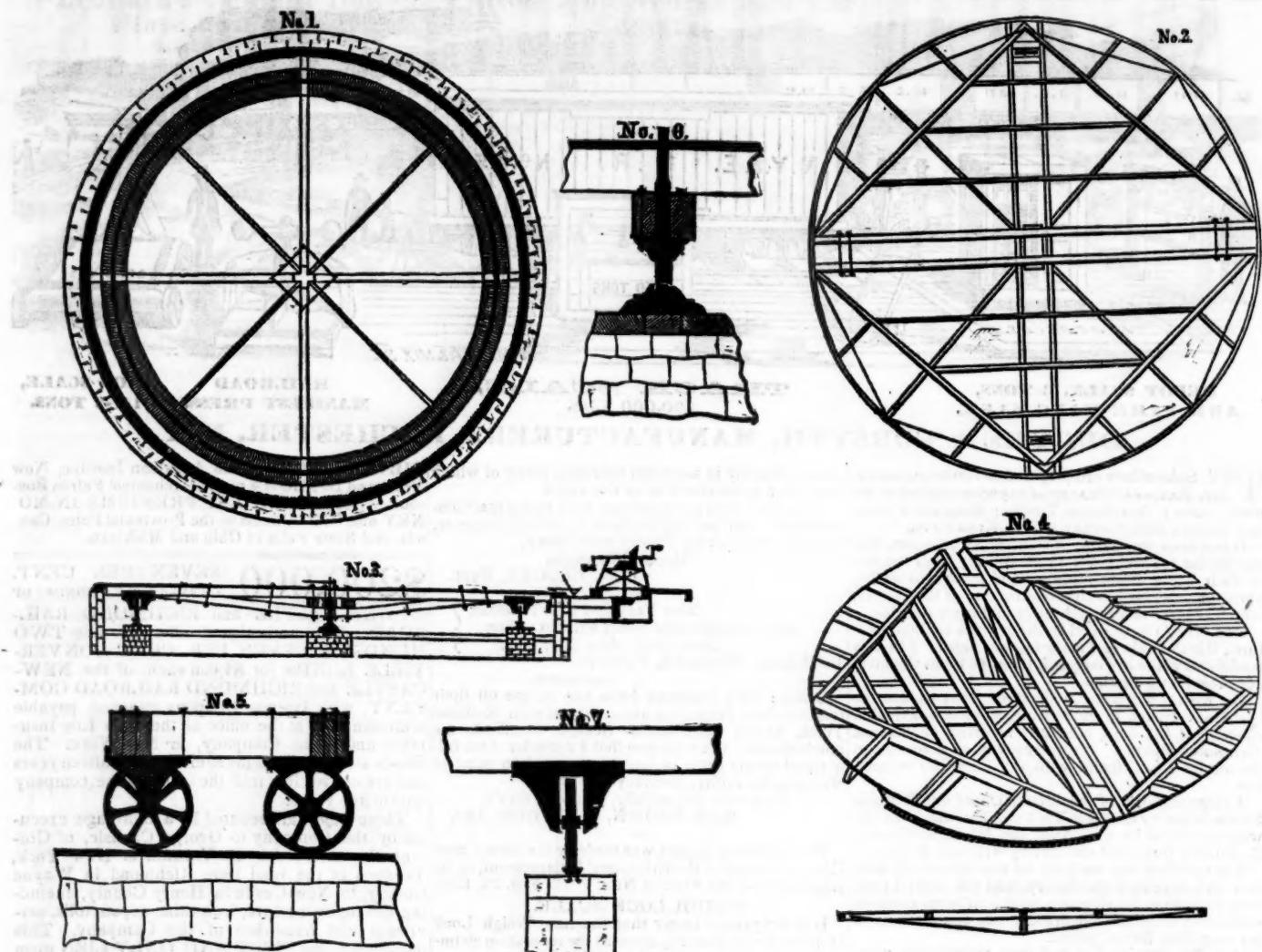
The local business alone would be sufficient to make the road profitable. The counties of Indiana through which it runs produce annually more than two millions of bushels of wheat, five millions of bushels of corn, one hundred and fifty thousand hogs, and fifteen thousand cattle, a large part of which must be transported to market on this road.

The iron rails for more than fifty miles of the road have been purchased. Ten miles of the road, from Richmond to Washington, will be completed and in operation in November next, which will make a continuous railroad of about 70 miles from Cincinnati, by way of Hamilton, Eaton and Richmond.

The holders of the bonds will have for their security the obligations of the company, with subscriptions of stock to the amount of more than half a million of dollars, and a mortgage upon the road from Richmond to New-Castle, with the iron rails, superstructure, tolls and franchises of the company.

CARPENTER & VERMILYEE, 44 Wall-st.  
CAMMANN WHITEHUSE & CO. 56 Wall-st.

## CARHART'S IMPROVED TURNTABLE.



THE Pattee of the improved Turntable solicits an examination of its merits by Railroad Companies. It has been in use on the Hudson River Railroad during the last three years, since which, some improvements have been made upon it. The Pattee is now putting down the fifth table on the Ohio and Pennsylvania Railroad, where these tables have been in use for one year past. The *chief merits* of this Turntable are that it is capable of being turned by two men, with an engine and tender upon it, weighing thirty-five tons, in the space of two minutes. Its cost, including all material, the best kind of workmanship in wood, iron and ma-

sonry—except excavating the pit and laying the track—is only *thirteen hundred dollars*, and all repairs, except the ordinary wear and tear, will be guaranteed for the sum of five dollars a year, for three years.

Figure 1 of the above cut represents the foundation, consisting of the bank and track walls; centre pier, cross-timber for bolting the step of pivotto. The track, which is spiked and leaded into the coping of the wall, the latter being composed of stone  $2\frac{1}{2}$  feet square. The Bank wall is 5 feet high and 20 inches thick, with cut and hammered dressed stone coping laid in lime and sand. Fig. 2 shows the

carcass framing. Fig. 3 gives a side view of one main truss, with the mode of gearing, including rack and pinion. Fig. 4 gives a perspective view of rim and segments. Fig. 5 an end view of the main trucks with pedestals and wheels. Fig. 6 screw for pivot, 6 inches in diameter, running to the top of the table, with the lever for adjustment. Fig. 7 shows the cross section of the track wall, wheel and pedestal.

For further particulars please address the subscriber through WM. W. PRATT, Jersey City, N. J.

June 19th.

D. H. CARHART.

## New York and Canada.

The attention of Merchants, Traders and travellers, is directed to the facilities now afforded for the conveyance of freight and passengers direct from this city to Montreal.

The Champlain and St. Lawrence Railroad Company having opened their road from Rouse's Point to South Montreal, the only link before wanting to connect New York with Montreal by a continuous railroad, has been supplied.

Passengers leaving New York in the morning, sleep comfortably on the way, and arrive at Montreal at half-past four the following afternoon, reducing the travelling time to little more than twenty hours. Freight are carried with the greatest care and dispatch, at greatly reduced rates.

After the opening of navigation, passengers will be conveyed from one city to the other by day light.

New York, Feb. 13, 1850.

## CORROSIVE SUBLIMATE.

THIS article now extensively used for the preservation of timber, is manufactured and for sale by POWERS & WEIGHTMAN, manufacturing Chemists, Philadelphia.

Jan. 20, 1849.

To Telegraph Companies.  
TELEGRAPH WIRE.

ORDERS taken for all numbers of best quality of English Telegraph Wire. Samples at the office of the Subscribers. JEE, CARMER & CO., 6m\*14 75 Broad st., New York.

**Spikes, Spikes, Spikes.**  
ANY person wishing a simple and effective Spike Machine, or a number of them, may be supplied by addressing J. W. FLACK, Troy, N. Y. or, MOORE HARDAWAY, Richmond, Va. March 6, 1850.

**Dudley B. Fuller & Co.,**  
IRON COMMISSION MERCHANTS,  
No. 139 GREENWICH STREET,  
NEW YORK.

**Smith & Tyson,,**  
IRON COMMISSION MERCHANTS,  
BALTIMORE.

**REFINED** Junia Charcoal Billet Iron for Wire.  
Do. for Bridging, of great strength.  
*Flat Rock*, Boiler and Flue Iron, rolled to pattern.  
*Elba*, Wheel Iron of great strength and superior chilling properties. *Elba* Forge Iron, American Shot Iron, Cut Nails, Spikes and Brads, Nail and Spike rods, Railroad Spikes of superior quality, Wrought Chair plates of any pattern, punched or plain.

**M. B. Hewson, Civil Engineer.**  
(Open to a New Engagement.)  
Memphis, Tenn.